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OF IGBO
CAUSATIVES

A Minimalist Account

Ogbonna Ndubuisi Anyanwu



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The Syntax of Igbo Causatives

A Minimalist Account

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Dedication

This book is dedicated to

Professor Ozo-mekuri Ndimele,

my mentor and role model.

Editorial Note

The Landmarks Series is a research and publications outfit founded by the Linguistic Association of Nigeria (LAN), and solely funded by the Landmarks Research Foundation. The main interest of the Landmarks Series is to publish well-written and outstanding doctoral dissertations on any aspect of Nigerian linguistics, languages, literatures and cultures. The purpose is to encourage the circulation of ideas generated by some recently completed doctoral dissertations by members of LAN. We are, however, working out modalities to extend this rare privilege to non-members as well.

Dr. Ogbonna Ndubuisi Anyanwu was among the first to respond to this all important invitation to members of LAN who completed their doctoral dissertations within the last 10 years to submit the revised version of their dissertations for consideration and publication in the Landmarks Series.

I am happy to announce to you the appearance of the second volume in the series of Landmarks.

This book is a revised version of Dr. Anyanwu's doctoral dissertation. It examines causatives in Igbo within the minimalist program. It identifies three types of causative: analytical, morphological and lexical.

Both the analytical and morphological causatives constitute what the author refers to as the **-mé** causative. This is because the main VP of each of these two causative constructions is headed by the causative verbal element **-mé** 'cause'. The author argues that the causative verbal element **-mé** has a dual morphosyntactic status. In the analytical causative, **-mé** functions as an autonomous verb, while in the morphological one; it functions as a strong affixal light verb.

Using evidence from topicalization, clefting and pronominal subject clitic strategies, Dr. Anyanwu argues that the analytical causative construction consists of two clauses: a main clause and an embedded one. As was earlier mentioned, the VP of the main clause is headed by the causative **-mé**, while the embedded VP can be headed by any transitive verb or intransitive verb. Thus, both the main verb and the embedded verb in the analytical construction are generated at different VP positions, and they remain so throughout the course of derivation. They are also assigned different thematic grids.

The **-mé** morphological causative construction, which is essentially monoclausal in overt syntax, is, however, derived from its analytical counterpart via incorporation or head movement, and it provides an alternative

paraphrase option for the expression of the analytical causative. Hence, it is the marked **-mé** causative construction, consisting of the morphological causative verb, which is a product of a syntactically motivated word formation process that results in the creation of the morphological causative verb. In the formation of morphological causative verb, the causative verbal element **-mé** incorporates an intransitive verb, but never a transitive one. Both the causative **-mé** and the incorporated intransitive verb which, before incorporation headed two different VPs, end up as a unit in overt syntax with a single thematic grid, with their respective arguments becoming the arguments of the derived morphological causative verb.

The lexical causatives in Igbo are expressed through the use of causative verbs. In terms of morphological structure, Dr. Anyanwu argues that a lexical causative verb can be bipositional or non-bipositional. He, however, observes that this group of bipositional causative verbs constitutes the majority of lexical causatives in Igbo. While some bipositional causative verbs are just transitive, others alternate their transitivity. As should be expected, the transitive alternant of a bipositional verb is causative, while the intransitive alternant is non-causative. Dr. Anyanwu also argues, in line with minimalist assumptions, that all the bipositional verbs are products of morphological merger in the Igbo lexicon.

The book is divided into five chapters. Chapter 1 is the general introduction, while Chapter 2 examines in some details the theory of causativity. Chapters 3, 4 and 5 focus on the analytical, morphological and lexical causative respectively.

To be candid, I have been part of the history of the making of this excellent master-piece, and I hasten to say that the book is well-researched, and that the project is well-executed. One of the striking qualities of this book is how the author gives an overview of the minimalist enterprise in a straightforward and lucid prose. So, scholars who want to be initiated into the Chomskyan minimalist school should begin by reading the outline of the minimalist program as contained in this book.

I am strongly encouraged by the responses to the invitation to the Landmarks Series. In addition to the two volumes already in print, there are six other submissions currently undergoing editorial scrutiny, and we hope they will be ready in print in a few months to come. I want to still use this medium to solicit more quality submissions. Please make use of this golden opportunity while the Landmarks Research Foundation and LAN continue in their present health.

Ozo-mekuri Ndimele, PhD

Professor of Comparative Grammar

Founding Editor & National President, LAN

September 2007

Preface

This book grew out of my PhD dissertation which I defended at the Department of Linguistics & Communication Studies, University of Port Harcourt, in August 2005. The book discusses three types of causatives in Igbo. These are the analytical (syntactic), the morphological and lexical causatives. The analytical and morphological causatives constitute what I refer to as the **-me**. This is simply due to the fact that the main VP of both types of causative is headed by the causative verbal element **-me**. The causative verbal element **-me** has a dual morphosyntactic status. In the analytical causative, **-me** behaves as an autonomous verb, while in the morphological one, it functions as an affix.

Facts from topicalisation, clefting and resumptive pronoun strategies reveal that the Igbo analytical causative consists of two clauses: a main clause and a dependent one. The **-me** morphological causative is derived from its analytical counterpart via incorporation (head-movement) (Baker 1988). The derived verb in the morphological causative construction comprises the causative **-me** and an embedded intransitive verb; both count as a unit in overt syntax with a single thematic grid.

The lexical causatives in Igbo are either non-bi-positional or bi-positional in terms of their morphological structure. Whereas some bi-positional verbs alternate their transitivity, others are either transitive or intransitive.

It is assumed in this book, that Igbo bi-positional causative verbs are derived from the lexicon through a morphological merger.

Many people have contributed towards ensuring a successful completion of this book, and I wish to express my sincere gratitude to them. Prominent among them is my supervisor, Professor Ozo-mekuri Ndimele, who not only supervised my PhD dissertation, but also made his library accessible to me. His guidance and advice have been most helpful.

My sincere thanks go to my lecturers who contributed in molding me academically. They include Late Professor Kay Williamson, Professor E.N. Emenanjo, Dr. C.E.W. Jenewari, Professor (Mrs.) Shirely Yul-Ifode, Professor (Mrs.) P.E. Ejele, Dr. E.E. Efere and Mrs. C.C. Isukul.

I sincerely appreciate the interest shown by my friends and colleagues: those at Port Harcourt and those at the National Institute for Nigerian Languages, Aba. These friends and colleagues have been a source of encouragement to me.

I remain eternally grateful to my parents, Chief E.A. Adiele and Mrs. Beatrice Adiele; my uncles, aunties, step brothers and sisters for their support.

Special thanks go to my siblings, Nwambe, Mwamma, Ukaa, Okey, Deedenwa, Anyiso and Mucheya, for their love and prayers. I am also grateful to Mrs. N.C. Enyia and Tina Eze who did the typesetting.

Finally, I thank JEHOVAH, the Almighty God, for His kindness, mercies and love towards me.

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Abbreviations

A	Adjective
A'	A-Bar (Non Argument position)
ABS	Absolute
ACC	Accusative
AGR	Agreement
Agro	Object Agreement
AgroP	Object Agreement Projection
Agrs	Subject Agreement
Agrs'	Subject Agreement bar
AgrsP	Subject Agreement Projection
A-position	Argument Position
Aux	Auxiliary
β	Beta
B(V)C	Bound(Verb) Complement
C	Complementizer
C'	Complementizer bar projection
C5	Class 5
C1	Class 1
CL	Clitic
CP	Complementizer Projection
CV	Consonant, Vowel
DO	Direct Object
ECM	Exceptional Case Marking
ECP	Empty Category Principle
EPP	Extended Projection Principle
ERG	Ergative
ES	Extensional Suffix
FUT	Future
GB	Government Binding
GF	Grammatical Function
HMC	Head Movement Constraint
IC	Inherent Complement
I(NFL)	Inflection
INSTR	Instrumental
INTRANS	Intransitive
IO	Indirect Object
IP	Inflection Projection
ISG	First Person Singular
LDOCE	<i>Longman Dictionary of Contemporary English</i>

LF	Logical Form
MP	Minimalist Program
N	Noun
NegP	Negative Projection
Nom	Nominative
NP	Noun Phrase
O	Object
OBL	Oblique
OM	Object Marker
P&P	Principle and Parameters
PF	Phonetic Form
Poss	Possessive
Pr	Prefix
Sp	Subject Prefix
Spec	Specifier
Sub	Subject
Suff	Suffix
SVC	Serial Verb Construction
t	trace
TNSP(TP)	Tense Projection
TNS(T)	Tense
TRANS	Transitive
UG	Universal Grammar
UTAH	Uniformity of Theta Assignment Hypothesis
V	Verb
V'	V-bar

Chapter1

Introduction

1. Preliminary Remarks

This chapter provides a general introduction to the book. Here, we have stated briefly the rationale for choosing Ngwa Igbo as the dialect of Igbo from which we draw data for this work, and an overview of relevant linguistic features of the Ngwa dialect. This chapter ends by introducing the theoretical framework adopted in this book.

1.1 Dialect Choice

A lot of research work has been done on the various aspects of Igbo grammar and a lot more is still being carried out, especially in its various dialects (cf. Thomas 1914, Achebe 1972, Ogbo 1984, Nwachukwu 1985, Emenanjo 2001). The dialects share a considerable degree of lexical items, a variety of phonological, morphological and syntactic features, and as well, a great deal of mutual intelligibility. They also form part of the richness and fascination of Igbo as a language, and creating a promising future, for Igbo studies requires adopting a positive attitude towards its dialects (Igwe 1999); hence, the dialectal variations should not be seen as an obstacle towards improved scholarship in Igbo studies, but as a rich and valuable asset.

As part of my contribution towards the study of Igbo, this book will be based on the Ngwa Igbo dialect. It is also the variety that I speak with the native speaker's competence.

Ngwa Igbo is spoken by an estimated population of about two million people (Nwigwe 1996, Ogbonna 1999) who are located in the southern part of Abia State, Nigeria. The area consists of seven local government areas, which are Isiala Ngwa North, Isiala Ngwa South, Obingwa, Aba North, Aba South, Osisioma, and Ugwunagbo. The land covers an area of approximately 520 square kilometers. It is bounded on the North by Ikwuano and Umuahia Local Government Areas (Abia State), on the West by Imo State and Rivers State, on the East by Akwa Ibom and on the South by Ukwa-East and Ukwa-West Local Government Areas respectively (Abia State).

1.2 Overview of Certain Linguistic Features of Ngwa Igbo

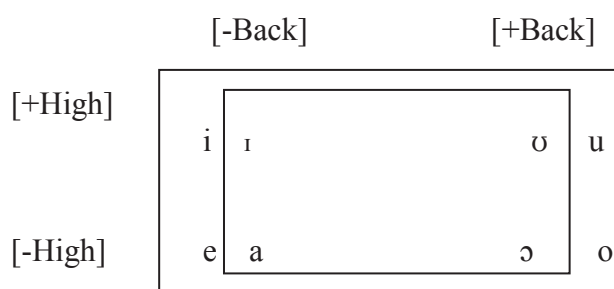
In the following sections, we shall discuss certain linguistic features of Ngwa Igbo.

1.2.1 The Phonology of Ngwa Igbo

Below, we present the vowel and consonant systems of Ngwa Igbo.

1.2.1.1 The Vowel System of Ngwa Igbo

Like most Igbo lects, Ngwa Igbo has eight vowels. The vowels are: [i, ɪ, u, ʊ, o, ɔ, e, a], as shown in the phonemic vowel chart that follows:



The occurrence of these vowels as well as their phonemic contrast is shown below:

- | | | | | | | |
|---|-----|-------|----------|-----|--------|------------|
| 1 | (a) | [ri] | ‘eat’ | (e) | [irò] | ‘to think’ |
| | (b) | [rɪ] | ‘climb’ | (f) | [Irɔ̃] | ‘to dream’ |
| | (c) | [aka] | ‘hand’ | (g) | [vu] | ‘carry’ |
| | (d) | [eke] | ‘python’ | (h) | [vɔ̃] | ‘harvest’ |

1.2.1.2 Vowel Harmony

The Advanced Tongue Root ([ATR]) vowel harmony operates in Ngwa Igbo. The [+ATR] distinction is due to the variation in the size of the pharynx. The size of the pharynx can be expanded (when the root of the tongue is pushed forward by a corresponding lowering of the larynx) producing [+ATR] vowels or contracted (when the tongue is pulled backwards while the larynx is raised) producing [-ATR] vowels. The [+ATR] vowels are also known as Expanded Vowels, and are enclosed in the larger box, while the [-ATR] (Non-Expanded) ones are enclosed in the smaller box in Figure 1. Generally, co-occurrence of vowels in root morphemes are subject to the [ATR] harmony in Ngwa Igbo since vowels in root morphemes will be drawn from either [+ATR] or [-ATR] set.

1.2.1.3 The Ngwa Igbo Consonant System

Following Green and Igwe's (1963) procedure, Oluikpe (1979:179) sets up 46 consonants (23 plosives, 18 fricatives and 5 nasals) in Ngwa Igbo. Without a clearer evidence of its contrast with other consonants, Oluikpe sets up the glottal stop [ʔ] as a phonemic consonant. In this work, however, we do not recognize the glottal stop [ʔ] as a phonemic consonant, since we are unable to contrast it with other consonants. We have established an additional consonant [ʃ] (sh) bringing the total number of consonants also to 46 (20 stops, 2 implosives, 16 fricatives, 2 approximants, 1 lateral and 5 nasals). Table 1 below shows the phonemic consonants.

Table 1: *Phonemic Consonants of Ngwa Igbo*

	Labial	Alveolar	Palatal	Non-Labialized Back	Labialised Back	Glottal
Nasals	m	n	n	ŋ	ŋ ^w	
Unaspirated stops	p b	t d		k g	k ^w g ^w	
Aspirated stops	p ^h b ^h	t ^h d ^h	tʃ ^h d ^h	k ^h g ^h	kw ^h g ^{wh}	
Implosives	ɓ ɗ					
Non-nasals trill		r				
Nasals trill		ɾ				
Fricatives				ɣ	h ^w	
Non-nasals fricatives	f v	s z	ʃ			h
Nasals fricatives	ɸ ɹ	ʂ ʐ			ɸ ^w	ɦ
Approximants	w	l	j			

The occurrence as well as the phonemic contrast of the consonants in Table 1 are as shown below. Note the orthographic way of representing each of the phonemic sounds. This is shown in bold print in the words.

2

- | | | | |
|-----|---------------------------------------|--------------------------------------|-----------------------------------|
| (a) | /p/ ≠ /b/ | p ia! 'press (out)' | b ia! 'come' |
| (b) | /p ^h / ≠ /b ^h / | ph ia 'flog' | bh ia 'thumb print' |
| (c) | /p/ ≠ /ɓ/ | -kp o 'call' | -gb o 'vomit' |
| (d) | /f/ ≠ /ɸ/ | -f u 'go out' | -ɸ u 'blow (out)' |
| (e) | /v/ ≠ /ɹ/ | -v u 'harvest (e.g. cassava)' | -ɹ u 'hatch (e.g. chicks)' |

(f)	/ m / ≠ / n /	inā ‘to collect’	imā ‘to know’
(g)	/ t ^h / ≠ / t /	itē ‘cook (e.g. soup)’	ithē ‘to wake up’
(h)	/ d / ≠ / d ^h /	dēe! ‘write!’	dhēe! ‘soften (e.g. boiling)’
(i)	/ s / ≠ / š /	isā ‘to wash’	išā ‘to spread (e.g. cloth)’
(j)	/ z / ≠ / ž /	izi ‘to clear the nostrils’	iži ‘to give a message’
(k)	/ ɾ / ≠ / r /	aṛa ‘breast’	ara ‘madness’
(l)	/ t̪ / ≠ / t̪ ^h /	ichè ‘to think’	ichhè ‘different’
(m)	/ k / ≠ / k ^h /	kèe ‘share’	khèe! ‘tie’
(n)	/ g / ≠ / g ^h /	igā ‘to go’	ighā ‘to grow’
(o)	/ kw / ≠ / kw ^h /	ikwē ‘to agree’	ikwhē ‘to weave’
(p)	/ gw / ≠ / gw ^h /	ngwa ‘quick’	ngwha ‘body ornaments’
(q)	/ h / ≠ / ħ /	ihū ‘to see’	iħū ‘to roast’
(r)	/ w / ≠ / l /	iwā ‘to split’	ilā ‘to go (e.g. home)’
(s)	/ h ^w / ≠ / h ^{w̃} /	-ihwe ‘to peel’	hwe ‘something’
(t)	/ j / ≠ / w /	ya ‘it/him/her’	wa ‘split’
(u)	/ ʃ / ≠ / s /	shi ‘feaces’	si ‘say’
(v)	/ d ^h / ≠ / d /	ojhī ‘iroko tree’	oji ‘kolanut’
(w)	/ ŋ / ≠ / n /	añu ‘bee’	anu ‘meat’
(x)	/ ŋ ^w / ≠ / n /	inwē ‘to have’	inyē ‘to give’
(y)	/ ɣ / ≠ / r /	agha ‘war’	ara ‘madness’

The occurrence as well as the phonemic contrast of the consonants in the table above are as shown below. Note the orthographic way of representing each of the phonemic sounds. This is shown in bold print in the words.

1.2.1.3.1 A Note on Some Ngwa Igbo Consonants

As can be observed in (2u), [ʃ] and [s] are not allophones of [s] but different phonemes. Both can occur before similar vowels (e.g. **shi** ‘feaces’ and **si** ‘say’

Certain consonants in Ngwa Igbo are inherently nasalized, even though there is no evidence of any nasal consonants within their vicinity. The consonant chart in table 1 shows that the nasalized consonants [h], [r], [h^w], [z], [f], [v] and [s] contrast with their non-nasalized counterparts. This can be observed from the distribution of the consonants in (2).

Aspiration is another feature of Ngwa Igbo consonants. Like nasalization, it is a feature of both voiced and voiceless obstruents. Aspirated consonants include [p^h], [b^h], [t^h], [d^h], [k^h], [g^h], [gw^h], [t̪^h], [d̪^h] and [kw^h]. Again, all these aspirated consonants contrast with their unaspirated counterparts (cf. 2).

1.2.1.4 The Tonal System of Ngwa Igbo

Ngwa Igbo, like most Igbo lects, has two significant tone levels which are high and low. There is also a tonal phenomenon which is referred to as downstep.

The downstep is a synchronic merger of two significant tone levels (a low tone followed by a high tone) where the low tone has lost its overt moraic (segmental) support in the course of derivation. Tone-glides are also not uncommon. They occur whenever there is a lengthened vowel in word-final position (Oluikpe 1979). Just as in other Igbo lects, tones in Ngwa Igbo perform both lexical and grammatical functions, as briefly discussed below.

1.2.1.4.1 Lexical Function of Tones in Ngwa Igbo

Tones perform a lexical function when they trigger a meaning difference between lexical items which are identical in form except for pitch difference(s). Examples include:

- 4(a) (i) àkwha ‘egg’ (b) (i) òke ‘rat’
 (ii) akwha ‘cry’ (ii) òkè ‘a share’

1.2.1.4.2 Grammatical Function of Tones in Ngwa Igbo

Tone performs a grammatical function when it makes a distinction between grammatical structures that are otherwise similar in all aspects. (except for tonal differences) Examples are shown below where the meaning difference between (a) which is a statement, and (b) a question lies on the tone difference between the initial third person pronominal clitics.

- 5 (a) Ȯ bìàrà ȩȩ
 3SCL come-past home
 ‘S/he came home’
 (b) Ȫ bìàrà ȩȩ
 3SCL-Q go-past home
 ‘Did s/he come home?’

1.2.1.4.3 Tone Classes for Nouns and Verbs

In Ngwa Igbo, there are five tone classes for nouns and two tone classes for verbs. The first three tone classes of nouns with each ending on a high tone correspond to Green and Igwe’s (1963) Tone Group 1 (TG1), while the last two with each ending on a low tone correspond to their Tone Group 2 (TG2). Examples are shown in Tables 2 and 3.

Table 2: *Tone Groups for Nouns*

Tones Classes	Pattern	Example
(TC)1	H(igh)	nwa ‘child’
TC2	HH	aka ‘hand’

TC3	L(ow)H	òke ‘rat’
TC4	HL	madhù ‘person’
TC5	LL	ìtè ‘pot’

Table 3: *Tone Groups for Verbs*

Tones Classes	Pattern	Example of Verb root
TCL1	H	-gbu ‘kill’
TCL2	L	-zà ‘sweep’

1.2.1.4.4 Tone Marking Convention

In this work, we have adopted the tone marking convention of Green and Igwe (1963); hence, we have left all high tones unmarked, marked all low tones with the symbol [ˋ] and marked all downsteps with the macron [-].

1.2.1.5 Ngwa Igbo Syllable Structure

Ngwa Igbo syllable structure like those of other Igbo lects can be a syllabic nasal (N), a vowel or consonant-vowel, as shown below:

- 6 (a) Syllabic nasal (N): **n-kìtā** ‘dog’
 (b) Vowel (V): **a-ka** ‘hand’
 (c) Consonant-Vowel (CV): **ma-dhù** ‘person’

1.2.2 Ngwa Igbo Morphology

As already stated, most of the examples cited on Igbo causatives in this book are drawn from Ngwa Igbo. Since causatives generally highlight the interaction between morphology and syntax, it be necessary to present a sketch of the basic morphological features of Ngwa Igbo.

1.2.2.1 Affixation in Ngwa Igbo

Affixation is a process of attaching affixes to other linguistic units. Affixes are bound morphemes which do not have independent occurrence. They must attach to some other morpheme(s) such as roots or stems. Generally, affixes can be classified based on their position in relation to the root or based on the function they perform. Based on the position of occurrence, the affixes in Ngwa Igbo are classified into prefixes, suffixes and interfixes, while functionally, they are classified into derivational, extensional and inflectional. We shall outline some of the Ngwa Igbo affixes based on their positional distribution, noting their functions where necessary.

1.2.2.2 Ngwa Igbo Prefixes

A prefix is an affix which occurs before the root of a word. The characteristics of prefixes in Ngwa Igbo include the following:

- (a) They can perform derivational functions.
- (b) They can perform inflectional functions

The following are some of the prefixes in Ngwa Igbo.

Table 4: *Prefixes in Ngwa Igbo*

	Prefix	Functional and associated features	Verb root/ Host	Example in sentence
1.	a-/e- (subject to ATR Harmony rule)	(a) Marker of Bound Complement (MBC). It is always on a low tone, though it changes to a downstep when preceded by a high tone. (b) Simple Participle Marker (SPM). It is always on a high tone with low tone verbs but on a low tone with high tone verbs. It is preceded by the auxiliary verb -ji which marks habituality. (c) Prohibitive Marker (PM). It is always on a high tone. It requires a non-harmonizing suffix =la in order to express the prohibitive meaning. (d) Manner Nominal Marker (MNM) which is used to derive a nominal from a verb.	(i) -ri 'eat' (ii) -ga 'go' (i) -za 'sweep' (ii) -ri 'eat' (i) -ta 'chew' (ii) -ri 'eat' (i) -go 'deny'	Ezè nrìrì jì ɛrì Ezè pr.eat-past yam BC 'Ezè certainly ate yam' Ezè ngàrà ụlọ àga Eze pr.go-past home BC 'Eze certainly went home' Ezè n̄jì aza ụlọ ahụ Eze Pr.Aux SP house that 'Eze always sweeps that house' Ezè n̄jì ɛrì rì Eze Pr.Aux SP food 'Eze always eats food' A-tā-la PM-chew-suff 'Do not chew!' E-rī-la PM eat-suff 'Do not eat!' agọ MNM-deny 'denial'

		The meaning of the derived nominal is a 'way' of the meaning expressed by the verb. The MNM is always on a high tone.	(ii) -bù 'sing'	abù□ MNM-sing 'song'
2.	i – (subject to ATR Harmony)	(a) Affirmative Infinitive Marker (AIM). It is always on a high tone. (b) Simple Participle Marker (SPM). It is always on a high tone. It may be preceded by the auxiliary -ga which is a future marker or the auxiliary -a which marks progression.	(i) - ri 'eat' (ii) -zà 'sweep'	iri AIM-eat 'to eat' ìzà AIM-sweep 'to sweep'
3.	n- (always homorganic with a following consonant)	(a) Non-Perfect Marker (NPM). It is always on a low tone. (b) Marker of Instrumental Noun (MIN). It is always on a low tone. (c) Marker of Complex Gerund (MCG). It is	(i) -ri 'eat' (ii) -zà 'sweep'	Ezè ngà irī ri Eze Pr.Aux SP food 'Eze will eat food' Ezè ndì ìzà ụlò ahù□ Eze Pr.Aux SP house that 'Eze is sweeping that house'
			(i) -ri 'eat'	Unù ñrìrì rì 2PL NPM Pr. eat-past food 'You (plural) ate food'
			(ii) -zà 'sweep'	Àdha ñga ìzà Adha NPM Pr. Aux SP ụlò ahù house that 'Adha will sweep that house'
			(i) -kpà 'shave (hair)'	ṁkpà MIN-shave 'scissors'
			(ii) -vọ 'scratch'	ṁvọ MIN-scratch 'comb'
			(i) -gbudhà	mgbudhà MCG-cut down 'cutting down'

4.	e- (subject to the ATR Harmony)	always on a high tone. (d) Marker of Noun (MN). It is always on a low tone. It also goes with a nasal suffix. (e) Imperative Marker (IM). (a) Perfect Marker (PM). It requires the presence of the harmonizing completive suffix =e and a non-harmonizing suffix = la to express the meaning of completion. The PM is always on a low tone. When the subject of the sentence is a second or third person singular pronominal clitic, the e-prefix is not overtly marked. (b) Negative Marker (NM). It is always on a high tone. It requires the presence of the general negative suffix =ghị which is also preceded by the suffix = fụ.	‘cut down’ ii) -nwebà ‘take in’ (i) -gba ‘peel (melon)’ (ii) -jhe ‘travel’ -jhe ‘go’ (i) - ri ‘eat’ (ii) - ri ‘eat’ - ri ‘eat’	m-nwebà MCG-take in ‘taking in’ ngbàmè MN-peel- suff. ‘melon’ nhèmhè MN-travel-suff ‘journey’ njhē IM-go ‘Let us start to go’ Ezè əriela ri Eze PM pr. eat-suffix-suff food. ‘Eze has eaten food’ O rīe la ri 3sgCL eat – food ‘S/he has eaten food’ Ezè ərifughị ri Eze NM eat-suff-suff food ‘Eze did not eat food’
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5.	o- (subject to the ATR Harmony)	(a) Marker of Simple Gerund (MSG). It is always on a low tone. (b) Marker of Agentive Noun (MAN). It is always on a low tone	-pù ‘leave’ (i) -me ‘do’ (ii) -kpù ‘mould’	òpùpù MSG-leave- leave ‘act of leaving’ òme MAN-do ‘doer (of something)’ òkpù MAN-mould ‘moulder’
6.	u- (Subject to ATR Harmony)	Marker of Nouns derived from verbs (MN). It is always on a low tone.	(i) -le ‘examine’ (ii) -ko ‘hang’	ùle MN-examine ‘examination’ ùko MN-hang ‘hanger for drying cereals’

1.2.2.3 Ngwa Igbo Suffixes

The suffixes in Ngwa Igbo do not perform derivational functions since they cannot change the form class of the words to which they are attached. They can be inflectional or extensional. We shall briefly discuss the two types of suffixes.

1.2.2.3.1 Ngwa Igbo Inflectional Suffixes

The inflectional suffixes modify the form of the word to which they are attached, so that such words fit into particular syntactic slots. They do not change the referential or cognitive meaning of their hosts. They are used to mark aspect, tense, mood or negation. We shall list some of the inflectional suffixes in Ngwa Igbo.

Table 5: *Inflectional Suffixes in Ngwa Igbo*

	Suffix	Function and associated features	Verb root/Host	Example
1.	=a (=e,=o =ọ) subject to ATR Harmony	(a) Imperative Marker (IM). It is always on a high tone.	(i) -rì ‘eat’ (ii) -zà ‘sweep’	rìe eat-IM ‘eat!’ zàa sweep-IM ‘sweep!’

		(b) Hortative Marker (HM). It is always on a high tone.	(i) -ri 'eat' (ii) -zà 'sweep'	Kà ànyị nrie ya Let us NPM pr.eat HM it 'Let us eat it' Kà wo nzàa ụlọ ahụ Let them NPM Pr.sweep house that 'Let them sweep that house'
2	=ghị (not subject to ATR Harmony)	The General Negative Marker (GNM). It is always on a high tone. It requires the e-negative Prefix and is also preceded by the -fụ suffix.	(i) -ri 'eat' (ii) - zà 'sweep'	Ezè e rī fụ ghị ri ahụ Eze Pr. eat suff-GNM food that 'Eze did not eat that food' Ezè àzà fụ ghị ụlọ ahụ Eze Pr. sweep-suff-GNM house that 'Eze did not sweep that house'
3.	=la (not subject to ATR Harmony)	(a) Affirmative Perfect Marker (APM). It requires the non-harmonizing completive vowel suffix = e. It also requires the harmonizing Prefix e- if the subject is not a second or third person pronominal clitic. (b) Prohibitive Marker (PM). It is always on a low tone. It requires the presence of the harmonizing Prohibitive Prefix Marker.	(i) -ga 'go' (ii) - ri 'eat' -zà 'sweep'	Ọ gāala ụlọ ya 3SCL. go - suff. APM house 3 Subj. 'S/he has gone to his/her house' Ezè èriela ri ahụ Eze Pr. eat suff. APM food that 'Eze has eaten that food' A zàlà Pr. sweep PM. Suffix. 'Do not sweep'
4.	=ra	Unfulfilled Aspect Marker (UAM). It co-occurs with the future auxiliary verb -ga.	-zà 'sweep'	Ezè ngàra ịzà ụlọ ahụ Eze Pr. Aux UAM SP house that

5.	=rv	(a) Factative Aspect Marker (FACT). The vowel part of this Suffix is copied from all the features of the vowel in the preceding syllable. (b) Imperative Marker (IM) for stative/ active verbs	-ri 'eat' (i) -vu 'carry' (ii) -kwò 'carry (baby)'	'Eze ought to have swept that house.' O riri ri 3SCL eat-FACT. food 'S/he ate food' vùru avọ nà carry-IM basket this. 'carry this basket' kwòrọ nwa ahụ carry-IM baby that 'Carry that baby'
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1.2.2.3.2 Extensional Suffixes in Ngwa Igbo

Extensional suffixes refer mainly to suffixes which modify the meaning of their hosts (verbs) without changing the categorial status of such hosts. The following suffixes function as extensional suffixes in Ngwa Igbo.

Table 6: *Extensional suffixes in Ngwa Igbo*

Suffix	Meaning	Verb root/Host	Example
=bi	reduce in quantity	-ri 'eat'	-ribì 'reduce by eating'
=cha	finish	-ri 'eat'	-richa 'eat up'
=chhi ₁	persistently	-sò 'follow'	-sò-chhi 'follow persistently'
=chhi ₂	replace	-zụ 'buy'	-zùchhi 'buy to replace'
=chu	prematurely	-nwụ 'die'	-nwùchu 'die prematurely'
=de	fasten against	-jì 'hold'	-jìde 'hold tightly'
=di	first and foremost	-me 'do'	-mèdi 'do first and foremost'
=fu	away, completely	-lù 'throw' -ri 'eat'	-lufù 'throw away'-rifù 'eat completely'
=gharị	reversing an event, or repeating an event	-ga 'go' -me 'do'	-gàgharị 'go again' -mègharị 'do again'

=gwa	retaliative	-kù ‘hit’ -kà ‘talk’	-kùgwa ‘hit back’ -kàgwa ‘talk back’
=hĩa	‘forestall’	-me ‘do’ -kà ‘talk’	-mèhĩa ‘do to forestall’ -kàhĩa ‘talk to forestall’
=hu	backwards	-gwè ‘take’ -nye ‘give’	-gwèhu ‘take back’ -nyèhu ‘give back’
=kata ₁	so much and continuously	-bĩa ‘come’ -ri ‘eat’	-bĩakata ‘come continuously’ -rikata ‘eat continuously’
=kata ₂	associative, congregative and together or in company with	-nye ‘give’ -ri ‘eat’	-nyèkata ‘give together with’ -rikata ‘eat together with’
=kwa	again	-me ‘do’ -ga ‘go’	-mèkwa ‘do again’ -gàkwa ‘go again’
=kwasà	‘in addition to’	-dho ‘keep’ -ri ‘eat’	-dhokwàsà ‘keep in addition to’ -rikwàsà ‘eat in addition to’
=li	‘away from’	-gwè ‘take’ -vu ‘carry’	-gwèli ‘take away from’ -vùli ‘carry away from’
=nye	illative/put into’	-ti ‘put’ -vu ‘carry’	-tìnye ‘put into’ -vùnye ‘carry into’
=pĩa	completely or into pieces	-ri ‘eat’ -dà ‘fall’	-ripĩa ‘eat up completely (idiomatic)’ -dapĩa ‘fall to pieces’
=ri	reduce to bits	-gwe ‘grind’	-gweri ‘grind to pieces’
=rv	applicative	-gwè ‘take’	-gwèrè ‘take for self’
=sa	spread	-kù ‘hit’	-kùsà ‘hit to spread’
=sì	persistently	-me ‘do’	-mèsi ‘do persistently’
=ta	towards	-gwè ‘take’	-gwèta ‘take towards’
=tu	away, from	-zo ‘hide’	-zotù ‘hide from/away’
=tò	cause to lose former value	-me ‘do’	-metò ‘cause to degrade’
=tu	cause to fall down	-gbu ‘kill’ -vu ‘carry’	-gbutù ‘cut down’ -vutù ‘carry down’
=tu	to make slight contact with	-ri ‘eat’	-ritù ‘eat a little’
=vọ	expose to ridicule	-me ‘do’	-mèvọ ‘disgrace (some person)’

=wa	inceptive	-ri 'eat'	-rìwa 'begin to eat'
=zọ	forgetfulness	-chè 'think'	-chèzọ 'forget'

1.2.2.4 Ngwa Igbo Interfixes

An interfix interrupts the sequence of two roots which may or may not be identical. Generally, Ngwa Igbo interfixes perform derivational functions since they change the categorial status of the hosts to which they are attached. An Igbo interfix may be **-m-**, **-l-**, **-t-** or **-r-**. The table that follows shows these interfixes.

Table 7: *Interfixes in Ngwa Igbo*

Interfix	Root	Derivative
-m-	ánu 'meat'	anụmanù 'animal'
-l-	akha 'tall'	akhalakha 'tallness'
-t-	àha 'equal'	àhataha 'equality'
-r-	kwu 'talk'	ekwurekwu 'talkative'

1.2.2.5 A Note on Ngwa Igbo Verb Morphology

The verb occupies a central position in the grammar of any language. In Ngwa Igbo, like in most languages, the verb plays a very important role. For instance, word derivational processes are centred mainly on the verb.

All verbs in Ngwa Igbo are consonant-initial, and they may have one or more roots. The root of a word is the irreducible part of that word which has nothing attached to it. It is always present with or without some modifications. There are two types of root; the free root and the bound root. The free root is capable of independent existence, while a bound root is not capable of occurring in isolation. The bound root requires some other word-building elements to be attached to it. In Ngwa Igbo, a verb root can be simple or complex. A simple root consists of a root without any other dependent linguistic unit as in (7a), while a complex verb root may comprise two independent roots, as in (7b) or a root followed by one or more verbal extensions, as in (7c).

- | | | |
|------|------------------|-----------------------------|
| 7(a) | (i) -ga 'go' | (b) (i) -gbu-dhà 'cut down' |
| | (ii) -gwè 'take' | (ii) -kù-wa 'hit to break' |
| | (iii) -ri 'eat' | (iii) -ga-fè 'go across' |
-
- | | |
|-----|--------------------------------|
| (c) | (i) gwè-ta 'bring towards' |
| | (ii) rì-wa 'begin to eat' |
| | (iii) tà-cha 'chew completely' |

1.3 Theoretical Framework

The theoretical framework we have adopted in this work is the principles and parameters (P&P) approach with special focus on the Minimalist Program (MP).

The MP (Chomsky 1991, 1992, 1993, 1995) constitutes a further development on the Government-Binding (GB) theory. As noted by Marantz (1995:352), the MP is a continuation of the trend in syntactic theory which began in the late 1970s with the ultimate goal of moving from specific grammatical rules that describe particular syntactic constructions to more general principles, which interact to explain syntactic phenomena. The basic assumption of the MP is “that languages have no rules ... but that there are universal principles and an array of options (parameters)” (Chomsky 1995:388). An example of a universal principle is the requirement that every phrase in a language must have a head. The head parameter determines the position of a head in a phrase thus, giving rise to head-initial languages (e.g. English) and head-final languages (e.g. Japanese).

The MP presents the syntax of a language as a computational system which links phonology and semantics (Marantz 1995:381). In fact, the MP derives its name basically from its major goals of minimizing syntactic rules needed to generate grammatical sentences. It conceptualizes grammatical representations and their well-formedness in ways different from GB. For instance, it reduces the set of four levels of representation (D-structure, S-structure, Phonetic Form and Logical Form) of standard GB (cf. Chomsky 1981, 1982, Cook 1988) to two interface levels: the Phonetic Form and Logical Form.

Although MP has no specific level known as the S-Structure, there is a point in the computation of grammatical representation where the derivation of a structure splits into interface levels: PF and LF. This point is referred to as the Spell-Out stage. Some principles such as the one “spelling out” (phonetically realizing) the head of a chain are necessary only to the PF, while others are relevant to the LF (e.g. those principles involved in control theory in GB). This means that in the derivation of any syntactic structure, there is a point where whatever structure that is derived splits into two paths, thus making it possible for principles relevant to PF to operate separately from principles relevant to LF. As pointed out by Napoli (1996), the difference between S-Structure and Spell-Out is not merely terminological, but also conceptual. Whereas conditions and constraints apply on S-structure, no such conditions and constraints apply on Spell-Out; hence, Spell-Out is not a syntactic level. In order to ensure well-formedness conditions on structures within the MP, lexical items which are inherently endowed with morphological features before entering any derivation process are checked for convergence at both PF and LF.

When the features of the structure check appropriately at PF and LF, the structure is said to “converge”, while otherwise, such a structure “crashes”.

Three major economy principles constrain derivations in MP. They are Shortest Move, Greed and Procrastinate. We shall discuss each of these briefly.

1.3.1 Shortest Move

The principle of Shortest Move ensures that a constituent moves to the closest accessible landing site from its original position in any single movement. That is, a constituent from its source position must move to the next hierarchically closest position of the right kind in an upward direction. The Shortest Move principle prevents movement from passing over an intervening node of the right kind, whether that intervening node is lexically filled or empty. Marantz (1995:355) notes that the Shortest Move principle has taken “over much of the work performed by Relativised Minimality (cf. Rizzi 1990), Subjacency (cf. Ross 1967, Chomsky 1973) and the Head Movement Constraint (HMC) (cf. Travis 1984) in earlier versions of P&P theory”; hence, its application is relativised to the type of constituent moving and the relevant landing site. Thus, heads move to head positions, and are prohibited from skipping any head position between their source position and their landing site. Also, intervening A-positions must not be skipped by constituents moving to A-positions just as A-bar movement of wh-elements must not cross over an A-bar specifier position.

1.3.2 Greed

For the principle of Greed, movement operations apply for the benefit of the moving constituent. That is, a constituent only moves for selfish reasons, i.e., to check off its own associated features (Radford 1997:98, Marantz 1995:358). By the Greed principle, a movement operation cannot apply to category A to enable some different category B to satisfy its own morphological needs. Thus, the principle does not allow the satisfaction of other elements other than the moving element. Also, the principle of Greed ensures that constituents do not move in order to check off features that have already been checked; hence, an NP already in a case marked position cannot move in order to check its case features; such a movement will be altruistic.

1.3.3 Procrastinate

Procrastinate, as an economy principle, prefers derivations that hold off on movement until after spell-out. Movements that do not affect PF are preferred over those that do. Procrastinate is used as an evaluative mechanism to assess convergent derivations, and a derivation may violate Procrastinate in order to converge. Marantz (1995) illustrates this principle by looking at the Verb (V) position in French and English. In French, as shown in example (8) from

Marantz (1995:372), VP-adjoined adverbs follow tensed main verbs. This means that the tensed main verb in French moves up to T(ense) before spell-out which ensures that at PF, the V will not be inside the VP but realized to the left of the adverb including all other constituents within the VP.

- (8) Pierre lave souvent les mains
Peter washes often hands
'Peter often washes his hands'

Thus, in French, a tensed main V must move in violation of Procrastinate in order for a derivation to converge. On the other hand, VP-adjoined adverbs precede the V in English and, in fact, never come between the V and a following constituent within the VP (cf. 9a-b). This shows that in English, V undergoes head movement after spell-out.

- 9 (a) Peter often washes his hands.
(b) *Peter washes often his hands.

Following Chomsky (1993), Marantz (1995) and Napoli (1996) observe that the relative ordering of VP-adjoined adverbs in both French and English can be explained by positing that verbal features in French are strong which need to be checked off via movement, else they will be visible at PF, while in English, they are weak, and therefore, are invisible at PF even if they are not checked off.

A strong feature is one which can trigger movement, while a weak feature cannot trigger movement. The condition of a feature being strong in one language or weak in another, according to Marantz (1995), is dependent on the morphological robustness of the language in question. Marantz (1995) notes that French is richer than English regarding agreement inflection. Whereas English has only a past and present morphological tense distinction, French has a range of morphologically realized tenses. Marantz adds that tense features in French are strong and therefore, need to be checked off before spell-out. This means that the failure of the V to move in order to check off its features before spell-out will cause a derivation to crash. This is unlike the situation in English where the tense features are weak. In such cases, Marantz notes that the V may wait until LF to check off its tense features, and this is the hallmark of Procrastinate which says that if a movement must hold off until after spell-out, then it must wait. By this principle, LF movement is preferred to overt movement.

1.3.4 Operations of the MP

There are four operations in the MP, and they are Operation Select, Operation Merge, Operation Move and Operation Check. These operations work one after the other. We shall briefly explain each of them.

a) *Operation Select*

This is the operation that ensures that lexical items (e.g. head and their complements) are appropriately selected.

b) *Operation Merge*

Through Operation Merge, lexical items selected unite or fuse in a binary relationship.

c) *Operation Move*

This Operation ensures the movement of some items (e.g. subject, verb, object, etc.) from their original positions to other positions during the course of a derivation.

d) *Operation Check*

This operation is responsible for the compatibility of features between specifiers and their heads. This is done by checking off the phi-features of heads against those of their specifiers.

Below is a diagram representing the facts of grammar as conceived within the MP.

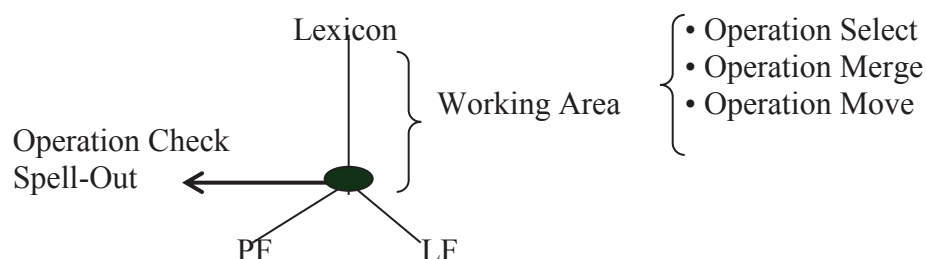
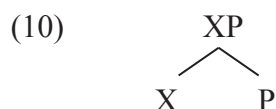


Figure 2: *Facts of grammar as conceived within the MP*

The above diagram (Fig. 2) shows that the derivation of a construction begins from the lexicon where lexical items (already endowed with full morphological features) are utilized. Through Operation Select, a lexical item say X selects another P. By Operation Merge, XP is derived, as shown in (10).



At the Spell-Out, the derivation XP advances to PF for phonetic realization and to LF for full interpretation. If the economy principles are all obeyed, the derivation will converge, else it will crash. The derivation of Ngwa Igbo causatives as we shall see in chapters three, four and five are subject to the three economy principles of the MP and this explains our choice and suitability of the MP for the analysis of Ngwa Igbo causatives (cf. 2.5.4.4).

Chapter 2

The Theory of Causativity

2 Preliminary Remarks

This chapter examines some of the kernel issues regarding causativity in general linguistic theory. Some of the things to be considered are the various definitions of causative, the three basic ways causative constructions are expressed vis-à-vis their non-causative counterparts, the semantics of causatives, the relationship between causativity and agentivity, the relationship between ergativity and causativity, changes in valency and grammatical relations as well as causatives and valency changes.

2.1 Causatives: A General Review

Causatives are common throughout the languages of the world. They include the range of widely studied phenomena in world languages, because “they are a source of great interest not only because of the important role they play in the derivational morphology of many languages, but also because of the way their analysis requires complex approach combining syntax, semantics and morphology” (Comrie 1985b:323).

Causatives have been extensively studied in different languages by various researchers. Some of the languages include English (Lyons 1968, McCawley 1968, Anderson 1977, Levin 1985, Trask 1993, Katamba 1993, Crystal 1997, Radford 1997, Smith 1999, etc.) Oromo, Ejagham (Watters 2000), French, Italian, Chukchee, Turkish, Japanese, Malayalam, Eskimo group of languages (Lyons 1968, Comrie 1985b, Zubizarreta 1985, Guasti 1997), Chichewa (Baker 1988, Marantz 1984, Comrie 1985b), Russian, Songhai (Sonrai), Nivkh, Georgian, Hungarian, Swahili (Comrie 1985b).

In Igbo, however, not much has been done on causatives. Some of the few works which make direct references to causatives include Nwachukwu (1985), Hale, Ihionu and Manfredi (1995) and Uwalaka (1995).

2.1.1 The Term ‘Causative’: Some Definitions

According to Comrie (1985b:323), the term ‘causative’, which is a valency-increasing mechanism, is used to refer to a construction derived from another basic construction. Both the basic construction and the derived construction express some situation, but the derived one has a different subject and it is “the referent of this new subject that brings about (or more weakly, fails to prevent) the situation described by the basic construction”. The verb used in a causative construction is known as a causative verb.

Comrie (1985b) further adds that a causative verb may be a transitive verb formed from an intransitive verb or it may also, in many languages, be formed from a basic verb already of higher valency, in which case the derived causative construction always has at least (potentially) one more NP argument than the basic verb. Comrie cites the following examples from Turkish (1), Chukchee (2) and Wolof (3), noting that the (a) examples are non-causative, while the (b) examples are causative.

- 1 a) Hasan öl-dü
 Hasan die-PAST
 ‘Hasan died’

 b) Ali Hasan-i ol-dur - dü
 Ali Hasan-DO (direct object) die-CAUSE-PAST
 ‘Ali killed Hasan/Ali caused Hasan to die’.
- 2 a) Qua-t melev-g’ et
 reindeer-ABS-PL heal-3PL
 ‘The reindeer got better’

 b) ətleg-eqaa-t re-melev-ninet
 father-ERG: reindeer-ABS-PL heal-he/them
 ‘Father cured the reindeer’
- 3 a) Nenne bi di na toog
 child the FUT AUX (3SG) sit
 ‘The child will sit down’

 b) Di naa toog-al nenne bi
 FUT AUX (1SG) sit-CAUSE child the
 ‘I will make the child sit down’

The basic verbs (non-causative) in (1)-(3) are **öl** ‘die’ **melev** ‘heal’ and **toog** ‘sit’ respectively; while the derived (causative) verbs are **öl-dür** ‘cause to die’, **re-melev** ‘cure’ and **toog-al** ‘cause to sit’. It can be observed from (1)-(3) that the causative construction, in each instance, has one more NP argument.

Comrie (1985b) contrasts a causative construction with an anti-causative construction (a valency decreasing mechanism) which is an intransitive construction related to a transitive causative one. The anti-causative construction is similar in many ways to the passive; in both construction types, the direct object NP of the basic verb appears as the subject of anti-causative or passive. Again, Comrie cites the following examples from English (4), Russian

(5), Hungarian (6) and Nivkh (7) as shown below, noting that (4b), (5b), (6b) and (7b) are all anti-causative constructions, while (4a), (5a), (6a) and (7a) are causative constructions.

- | | |
|---|--|
| 4 | <p>a) Anthony opened the door
The door opened</p> |
| 5 | <p>a) Anton otkryl dver'
'Anton door opened'
'Anthony opened the door'</p> <p>b) Dver' otkryla-s'
'The door opened'</p> |
| 6 | <p>a) Zoltán cutkrot old a vízben
'Zoltan dissolves sugar in the water'</p> <p>b) A cukor a vízben old-ódik
'The sugar dissolves in water'</p> |
| 7 | <p>a) Jeskinivx magazin arke-t'
Salesman shop close
'The salesman closed the shop'</p> <p>b) Magazin p^h-arkt-t'
'The shop closed'</p> |

Lyons (1968:352) notes that the term 'causative' is used by linguists to describe the syntactic relationship that holds between "ergative" structures such that the subject of an intransitive verb in an intransitive construction becomes the object of a corresponding transitive verb of a derived transitive construction. For the derived transitive construction, a new 'ergative' subject is introduced as the 'agent' (or 'cause') of the action referred to by the derived transitive construction. Thus, the causative transitive construction is derived syntactically from an intransitive one by means of an 'ergative' or 'causative' transformation. The term 'ergative', as pointed by Lyons, is coined from a Greek verb meaning 'cause', 'bring about' or 'create'.

Lyons adds that the English verb **move** illustrates one of the ways in which intransitive and transitive sentences may be related by means of the notion of causativity. As can be observed in (7a'-b'), the verb **move** appears in sentence of both types (intransitive and transitive) without any modification of the verb itself. While (7b') is causative, (7a') is not.

- 7 a') The stone **moved**
 b') John **moved** the stone

Lyons, however, notes that there are pairs of different verbs in English between which the same syntactic and semantic relationship of causativity holds in corresponding intransitive and transitive sentences. He cites the following examples in (8), noting that the relationship of the transitive to intransitive is lexicalized; hence, it is a feature of English lexical structure that **John killed Bill** is grammatical, rather than **John died Bill**.

- 8a) Bill died
 b) John killed Bill

Lyons concludes by pointing out that the syntactic and semantic relationship between **kill** and **die**, for instance, is one that the child learning English must learn just as the child should appreciate the relationship between the transitive and intransitive uses of the class of verbs to which **move** belongs.

Similarly, Trask (1993:38) observes that the term 'causative' is used to refer to a transitive construction, related to a second simpler transitive or intransitive construction from which it differs by the additional presence of an agent NP perceived as the instigator of the action expressed in the simpler construction. Semantically, the idea expressed by a causative construction, which is usually eventive is caused by an entity. He adds that causatives are susceptible to a variety of other surface syntactic expressions in both English and other languages. Trask cites the examples in (9) and (10), observing that (9b) and (10b) are causative, while (9a) and (10a) are non-causative.

- 9 a) Tim smiles a lot
 b) Lisa **makes** Tim smile a lot.
- 10 a) I washed the car
 b) Lisa **made** me wash the car.

Furthermore, Trask observes that the term 'causative' is sometimes, but more controversially, extended to less obvious cases such as the sentences in column (11b)

11)

Non-causative	Causative
a(i) The potatoes boiled	b(i) Lisa boiled the potatoes
(ii) He decided to go	(ii) Lisa persuaded him to go

(iii) The corkscrew got lost	(iii) Lisa lost the corkscrew
(iv) The celery fell on the floor	(iv) Lisa dropped the celery on the floor

Again, Trask argues that in its extended use, as exemplified by the data in (11), the term ‘causative’ is being used in a purely semantic way, and many linguists, normally, would prefer to restrict the use of the term ‘causative’ to syntactically productive examples such as those in (9b) and (10b). Trask concludes by noting that the term ‘causative’ is also used to refer to a verb form of the type found in certain languages, used to express overtly such a causative construction.

For Crystal (1997:96), causative is “a term used in grammatical analysis to refer to the causal relationship between alternative versions of a sentence”. He notes that the pair of sentences in (12) are related since the transitive **kill** in (12b) can be viewed as a “causative” version of the intransitive **die** in (12a) (*cause to die; the cat caused the mouse to die*).

- 12 a) The mouse died
 b) The cat killed the mouse

According to Crystal, some languages have affixes which have a causative role (in English, for instance, there is **-ize**, as in **modernize** ‘cause to become modern’), and they are established in the morphological structure of such languages to systematically distinguish between non-causative and causative uses of a verb. In English, the **en-** prefix attached to certain nouns and adjectives derives a causative reading similar to **make** in (9b); hence, to **en-slave** means ‘to make (someone) a slave’, while **en-large** means ‘to make (something) large’ (Katamba 1993). The examples of the use of the causative affixes are shown in (13).

- 13 a) John **enslaved** him.
 b) John **enlarged** the portrait.

From a semantic point of view, Guasti (1997:124) observes that the term ‘causative’ is used to refer to the semantics of eventive constructions whereby the idea expressed by such a construction is caused by an entity. She notes, for instance, that (14) gives information about **Mary reading hard**, while (15) (with an infinitive complement clause to ‘make’) provides the same information in addition to the fact that the idea of **Mary reading hard** was caused by Paul.

- 14) Mary reads hard
- 15) Paul made Mary read hard

Guasti further adds that **Paul** in (15) is the “causer” (the entity that brought about the event), while **Mary** is the “causee”. Guasti concludes by stating that the causative of the types exemplified by English in (15) is referred to as analytical causatives (Guasti 1997:124), since the causative verb and the verb of its infinitive complement clause are syntactically independent.

From the definitions and examples so far given, it is obvious that the term ‘causative’ is not only used to refer to syntactically productive examples like (9b) and (10b), but is also used in a purely semantic way to refer to lexical verb forms, such as those in (7b), (11b) and (12b), and even to morphologically productive cases, as in (13). Examples (10b) and (9b) represent the analytical (syntactic) causative, while examples (7b), (11b) and (12b) express the lexical causative. There is also a third type of causative construction, the morphological (synthetic) one which is exemplified by (1b), (3b) and (13). Thus, three basic types of causative have been identified in the literature, namely analytical (syntactic), morphological and lexical. These three types have been reported in many languages of the world, though each of them may not be expressed in the same way in different languages.

A causative construction whether analytically (syntactically), morphologically or lexically based has one unique feature; the feature that an NP is specified in the construction as being the participant responsible for causing (or not causing) a given situation.

In what follows, we shall briefly look at the three basic types of causative construction, providing adequate examples of each type.

2.1.2 Analytical (Syntactic) Causatives

As noted earlier, one of the basic ways through which causative situations may be expressed relative to the non-causative one is by the use of analytical causative. An analytical causative construction, according to Comrie (1985b:33), is:

“one that uses regular syntactic devices of the language forming complex sentences out of simplex sentences without fusing together the predicates of those complex sentences; in the case of causative constructions, this means that the predicate expressing the idea of causation will be separate...”

Comrie cites some examples, noting that an English sentence such as (16) which expresses a non-causative proposition has some corresponding syntactic causatives, as in (17).

16) Sam slide off the roof

- 17 a) Mary brought it about that Sam slide off the roof.
 b) Mary caused Sam to slide off the roof.
 c) Mary made Sam slide off the roof.

Note that in (17a-c), the idea of causation is expressed by the verbs **bring about**, **cause**, and **make**.

Generally, as noted by Lyons (1968), Guasti (1997) and Trask (1993), the formation of analytical causative construction is very productive cross-linguistically. The productive way of forming this type of causative in many languages is through the use of a verb which usually corresponds to the English **make**, **have**, **let**, **cause** or **bring about**.

As the examples in (17) show, English is one of the numerous languages that make use of analytical causative construction. A key feature of the analytical causative construction is the fact that it is biclausal, consisting of two predicates. In English, for instance, as can be observed from the examples in (17), the first predicate consists of the causative verb which expresses the idea of causation, while the second predicate, normally a complement clause to the causative verb, expresses the result situation as initiated by the causative verb. This means that the verb in each of the predicates in an analytical causative construction counts as a separate unit in overt syntax. Again, whereas the English main clause in (17) contains the ‘causer’ (the entity that brings about the event), the dependent complement clause contains the ‘causee’ of the event expressed by the entire clause. This situation has been reported in a number of languages, including Italian (Guasti 1991, 1993, 1996, 1997, Burzio 1986, Zubizarreta 1985), Spanish, French (Kayne 1975, Pearce 1990) and Ejagham (Watters 2000). The examples in (18) are from Ejagham (Watters 2000). Note that (18b) is the analytical causative counterpart of (18a).

- 18 a) N̄tem̄ òmé a-sôn
 CI: friend CI: my 3sg: PFV – become well
 ‘My friend is well’.
- 18 b) A yîm n̄tem̄ òmé a s-sôn
 3sg: PFV-make CI: friend CI: my 3sg: PFV become well
 ‘She made my friend become well’

The dependent complement clause to the causative verb in a analytical causative construction may be a finite clause, an infinitive clause or even a VP depending on what constitutes the internal configuration of the analytical causative construction. In English, as can be observed from examples in (17),

the dependent complement clause to the causative verb can be finite (17a) or an infinitive clause, as in (17b) and (17c). This is not, however, the case in all languages. For instance, Guasti (1997:131) reports that in Romance languages (Italian, Spanish, etc.), the dependent complement clause which superficially appears as an infinitive complement clause is in fact a VP. According to Guasti, this conclusion is arrived at based on the differences she observes between the infinitive complement clauses of causative verbs and other infinitive complement clauses to non-causative verbs. Whereas the infinitive complement clauses to non-causative verbs in Romance have the potentiality of projecting the full arrays of functional projections (complementizer projection, subject projection, negative projection, tense projection, object projection and VP position), the infinitive complement clause to the causative seems not to project most of these projections except of course, the VP which is an obligatory constituent. Guasti, thus, concludes that the infinitive complement clause to the causative verb in Romance languages is a VP.

Given the fact that the formation of analytical causative construction is a productive phenomenon cross-linguistically, Comrie (1985b) and Guasti (1997) note that in various languages, analytical causative constructions based on transitive and intransitive verbs are possible, as the following examples in (19) from English show.

- 19 a) John made Mary (to) **eat** rice.
 b) John made Mary (to) fall.

2.1.3 Morphological Causatives

Generally, morphological causative formation has to do with the combination of morphemes, forming a morphological unit within which the idea of causation is expressed or implied (Comrie 1985b, Spencer 1991, Guasti 1997). The morphological union forming the morphological causatives may involve affixes (prefixes, suffixes, etc.) and stems/bases or it can be by an amalgamation of the two verbal elements, where one of the verbal elements expresses the idea of causation, while the other expresses the effect of the causation, thus, forming a morphological causative compound verb. Comrie (1985b:331) notes that having “a morphological causative means that the predicate (which hitherto was non-causative) undergoes some derivational process in order to express causativity, there being no separately expressed predicate of causation”.

Similarly, Spencer (1991) points out that a good number of languages have a morphological causative, a device for creating a verb form which means “to cause x to verb” from a form ‘x verbs.’ The additional morpheme to the already existing root morpheme expresses the idea of causation where ‘x’ is a variable which stands for the entity that gets the effect of the causation.

Spencer further adds that evidence for the existence of morphological causatives exists cross-linguistically. We shall briefly discuss some more examples from different languages.

Spencer (1991) observes that English has the causative **en-**affix which can occur both as a prefix (**en-**) as in (20), and as a suffix (**-en**) as in (21). The **en-**prefix or suffix **-en** is usually affixed to an adjectival predicate to derive a causative verb.

20

<i>Prefix</i>	<i>Adjective</i>	<i>New word</i>	<i>Meaning</i>
en-	able	enable	make able
en-	large	enlarge	make large
en-	rich	enrich	make rich

21

<i>Suffix</i>	<i>Adjective</i>	<i>New word</i>	<i>Meaning</i>
-en	black	blacken	make black
-en	sick	sicken	make sick
-en	soft	soften	make soft
-en	strong	strengthen	make strong

Lyons (1968:360), however, notes that these morphological formations by prefixation and suffixation are no longer productive in modern English with the notable exception of the causative **-ize** suffix which is suffixed to certain stems to derive verb forms, as in (22) below.

22)

<i>Suffix</i>	<i>Stem</i>	<i>New word</i>	<i>Meaning</i>
-ize	computer	computerize	make to be in computer
-ize	energy	energize	make to have energy
-ize	natural	naturalize	make natural
-ize	legal	legalize	make legal

Turkish, Japanese (Lyons 1968, Comrie 1985a&b, Van Valin and Lapolla 1997), Swahili (Katamba 1993) and Nivkh (Comrie 1985b) all have productive and systematic formation of morphological causatives. They have causative affixes which are attached to non-causative verb stems in order to derive morphological causatives. For instance, Turkish uses the suffix **-dür** as (23), while Japanese makes use of the suffix **-(s)ase** as in (24). Swahili and Nivkh make use of the suffixes **-ish** and **-gu** respectively, as shown in (25) and (26).

-
- 23 a) Hasan öl-dü
Hasan die-PAST
'Hasan died'
- b) Ali Hasan-I öl-**dür**-du
Ali Hasan-DO die-CAUSE-PAST
'Ali caused Hasan to die/killed Hasan'
- 24 a) Ziroo ga ik-ta
Ziroo SUBJ. go – PAST
'Ziroo went'
- b) Taroo ga Ziroo O ik-**ase**-ta
Taroo SUBJ. Ziroo DO go-CAUSE-PAST
'Taroo made Ziroo go'
- 25 a) Wanafunzi wa-ta-imb-a
pupils SP-FUT. sing-BVS
'The pupils will sing'
- b) Nwalimu a-ta-wa-imb-**ish**-a Wanafunzi
teacher SP FUT. OM – sing – CAUSE-BVS pupils
'The Teacher will make the pupils sing'
- 26 a) Lep cě-d
bread dry –PAST
'The bread dried'
- b) If lep cě-gu-d'
he bread dry CAUSE-PAST
'He made (caused) the bread to dry'

Baker (1988:10-11) reports that Chichewa, a Bantu language, makes use of morphological causatives. The examples in (27) are from Baker.

- 27 a) Mtsuko u-na-gw-a
Waterpot SP-PAST – fall - ASP
'The waterpot fell'
- b) Mtsikana a-na-u-gw-**ets**-a mtsuko
Girl SP-PAST-OP-fall-CAUSE-ASP-waterpot
'The girl made the waterpot fall'

Baker notes that in (27a), **gw-** ‘fall’ is the main verb. Attached with this main verb are tense and agreement morphemes. In (27b), the same verb **gw-** has combined with a causative morpheme **-ets** ‘make/cause’. Thus, in (27b), **gw-** and **-ets** form a single semantic verb **gw-est** which is affixed with agreement, tense and aspectual morphemes.

Similarly, Spencer (1991:227) reports that Chukchee has a number of causative affixes. The commonest of these affixes is the prefix **r-(rə-** before a consonant) which often co-occurs with a suffix **-w**, **-et** or **-net**. The examples in (28), (29) and (30) are from Spencer (1991). Note that the examples in (28a), (29a) and (30a) have intransitive verbs with markers showing agreement with the subject NP. In (28b), (29b) and (30b), however, the same verbs have been transitivized by a causative affix. Note also that the causatives agree with their respective objects.

- 28 a) eret – g^ʔi
 fall – 3sg
 ‘It fell’
- b) r-eren-nin
 CAUSE-fall-3sg/sg
 ‘He drooped it’
- 29 a) P^ʔa – g^ʔe
 dry – 3sg
 ‘It dried’
- b) re- P^ʔa-w-nen
 CAUSE dry-CAUSE-3sg/sg
 ‘He dried it’
- 30 a) Cimet – g^ʔi
 break – 3sg
 ‘It broke’
- b) re-cime-w-nin
 CAUSE-break-CAUSE-3sg/sg
 ‘He broke it’

More examples of morphological causatives are found in Barai (a language of Papua New Guinea) as reported by Olson (1981). Also, Lakhota, Tepehua and Quiang (Tibeto-Burman languages) make use of morphological causatives (Van Valin and Lapolla 1997). The following examples in (31), (32), (33) and

(34) are from Barai, Lakhota, Tepehua and Qiang respectively (Van Valin and Lapolla (1997:98-99)).

- 31a) (i) doduae ‘be thirsty’
 (ii) dodua-**d** ‘make thirsty’
 b) (i) gare ‘be cool’
 (ii) gara-**d** ‘make cool’
 c) (i) mae ‘be happy’
 (ii) ma-**d** please (someone)
 d) (i) visi ‘be sick’
 (ii) visi-**nam** ‘sicken’
- 32a) (i) čhé-ya ‘cry’
 (ii) **yu** – čhéya ‘make cry’
 (iii) čhéya-**ya** ‘make cry’
 b) (i) iniha ‘be scared/frightened’
 (ii) iniha-**ya** scare/frighten (someone)
- 33a) (i) A ta:knu:-y ‘A goes underground’
 (ii) B **ma**:-knu:-y A ‘B buries A’
 b) (i) A tapaša-y ‘A changes’
 (ii) B **ma**:pasa-y A ‘B changes A’
 c) (i) A pu:pu-y ‘A boils’
 (ii) B **ma**-pu:pu-y A ‘B boils A’
 d) (i) A soqo-y ‘A hurries’
 (ii) B ma:soqo-y A ‘B hurries A’
- 34 a) təba ‘become big’
 b) teba-z ‘cause to become big’

The last sets of examples are taken from Watters (2000:213) who reports also that Oromo (Cushitic-Afroasiatic) and Ejagham (Ekoid, Benue-Congo, Niger Congo) make use of morphological causatives, which are marked by verbal affixes. Examples (34c-d) are from Oromo, while (34e-f) are from Ejagham. Note that the verbs in (34d) and (34f) contain the morphological causative verbs.

-
- 34 c) Aannan-ni daanf-e
 milk-NOM boil-AGR
 ‘The milk boiled’
- d) Terfaa-n aannan daanf-is-a
 Terfa-NOM milk boil-CAUSE-AGR
 ‘Terfa boiled the milk’
- e) ebhĩn abhõ e-rĩk
 C5: farm 3PL: POSS C5: PFV-burn
 ‘Their farm burned’
- f) yê á-ríg-ì ebhĩn abhõ
 C1:3sg:PFV-burn-CAUSE C5:farm 3PL POSS
 ‘He burned their farm’

From the data so far presented from different languages which relate to morphological causatives, it has been observed that there is a clear distinction between morphological causatives and their non-causative counterparts. Again, it has also been noticed that no matter how these distinctions are indicated morphologically in a particular language, they are fundamental distinctions which are made in the verbal systems of most languages.

2.1.4 Lexical Causatives

As noted earlier, Lyons (1968:352) points out that the verb **move** as in (35), “illustrates one of the ways in which intransitive and transitive sentences may be related by means of the notion of causativity”.

- 35 a) The stone **moved**
 b) John **moved** the stone

Lyons further adds that “the same verb enters into sentences of both types without modification of the verb itself”. In the same vein, Anderson (1977:116) argues that the tokens of the verb **move** represent different underlying verbs, with different case specifications for NPs in constructions containing them, as (35) shows. Anderson recognizes the implicational relation between (35a) and (35b), referring to (35a) as the “non-causative congener” of causative (35b).

Furthermore, Lyons (1968) states that there are pairs of different verbs between which the same syntactic (and semantic) relationship of causativity holds in corresponding intransitive and transitive sentences. This phenomenon,

according to Lyons, is attested in many languages of the world. The English examples in (36) are taken from Lyons (1968:352).

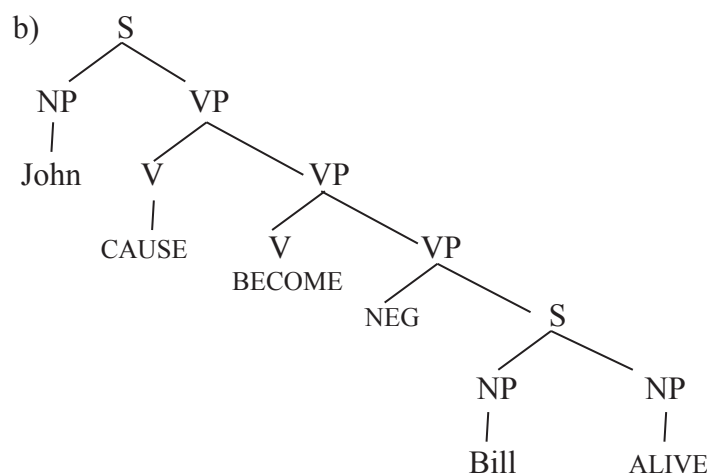
- 36 a) Bill died
 b) John killed Bill

Lyons argues that both the syntactic and semantic relationship existing between the transitive and the intransitive verbs in (36) is “lexicalized”. The implication of this relationship is that **kill** in (36b) is the lexical causative version of the non-causative **die** in (36a), and it is part of the lexical structure of English that (36b) is grammatical unlike (37). Thus, the class of verbs in English and other languages to which **kill** belongs is referred to as the class of lexical **causatives**.

- 37) *John died Bill

Lyons’ opinion concerning verbs such as **kill** is not different from earlier assumptions made by Generative Semanticists such as McCawley (1968). McCawley, for instance, had argued that a sentence such as (36b), for instance, is synonymous to (38a), while its underlying form is similar to (38b).

- 38 a) John caused Bill to die.



The lexical verbs such as **kill**, **move**, are also referred to as “ergative” (Lyons 1968:359). They occur in both intransitive and transitive sentences. Lyons argues that their transitive (causative) usage is derivable from their intransitive usage by means of a causative operation which has the effect of introducing an “agentive” subject NP to the intransitive construction in order to derive the transitive causative counterpart. Other verbs from English in this ergative class include **close**, **start**, **stop**, **begin**, **break**, **crack**, **split**, **tear**, **roll**, **bounce**, **drop**,

sink, etc. These verbs can be used causatively in which case there is a subject NP causing or bringing about the event expressed in the sentence, or they can be used non-causatively in which case there is no subject NP which brings about the situation. The data in (39) further illustrates the use of these ergative verbs.

39)

<i>Non-Causative Usage</i>	<i>Causative Usage</i>
a(i) The door opened .	(ii) John opened the door.
b(i) The meeting started .	(ii) John started the meeting
c(i) The car stopped .	(ii) John stopped the car.
d(i) The journey began .	(ii) John began the journey.
e(i) The plate broke .	(ii) John broke the plate.
f(i) The wall cracked .	(ii) John cracked the wall.
g(i) The log split	(ii) John split the log.
h(i) The dress tore .	(ii) John tore the dress.
I(i) The ball rolled across the street	(ii) John rolled the ball across the street.
j(i) The ball bounced on the floor.	(ii) John bounced the ball on the floor.
k(i) The stone sank in the water	(ii) John sank the stone in the water.

The verbs in column (a) though non-causative are intransitively used, while those in column (b) though causative, are also transitively used. With respect to the information conveyed by sentences in column (a), one might ask; who was the ‘actor’ or ‘agent’ responsible for the event expressed? The answer might be **John** which is derived from the sentences in column (b). Thus, the verbs in column (b) are used as causative verbs. Each verb has an instigator (John) of the action expressed by it. Hence, these verbs are referred to as lexical causatives. The verbs in column (a) are not causative; whatever that instigates the action is not mentioned.

From (39), it is also observed that the relationship between the causative transitive and intransitive non-causative is lexicalized without any morphological marking to distinguish the two. This is unlike the relationship between the lexical causative verb **kill** and its non-causative counterpart **die**. Lyons suggests that though **kill** and **die** appear superficially as different verbs, they can be treated as alternative syntactically-conditioned phonological realizations of the same verb. Accordingly, the other lexical causatives in column (b) of (39) (e.g. move, break, split, etc.), whose causative and non-causative usage does not manifest any morphemic change can be related to each other by means of a “morphological process of zero modification” (Lyons 1968:360).

So far, we have tried to highlight the three basic ways through which a causative construction can be formed. We have been able to distinguish the analytical causative from the morphological, and as well, distinguish the morphological causative from the lexical causative. Comrie (1985b:332), however, states that “the distinction between morphological and lexical causatives can be even more difficult to draw”. This is because, according to Comrie, lexical causatives can in principle, be treated as morphological causatives which involve suppletion. Thus, **kill** can be argued to be the causative of **die** just as **went** is the past tense of **go**.

In terms of the productivity of each type of causative construction, Comrie again, observes that the formation of analytical causatives generally, is completely productive. The formation of lexical causatives is non-productive, since there is no regular pattern to be extended to new items. For the morphological causatives, “the degree of productivity varies immensely from language to language” (Comrie 1985b:332).

2.2 The Semantics of Causatives

Although this work is not intended to focus mainly on the semantics of causatives but rather on their syntax, an overview of the semantics of causative constructions, especially the causative verbs, we believe, would not be out of place here. To this extent, we do not intend to go deep into the literature which relates to the details of semantic structures or logical representations of causatives. Therefore, we have provided an overview of the various forms of action (Aktionsart) of verbs, noting the various states of affairs which they denote. It is our hope that this overview will help us to understand the different forms of action inherent in Igbo causative verbs and as well, the various states of affairs which they can encode.

2.2.1 Predicates and States of Affairs

Kriedler (1998) notes correctly that the communicative functions of language are central to the analysis of its structure. He also adds that one of the functions of language is to provide reference with a predication. According to him, reference and predication involve representing things that happen in the world (or a possible fictional world (cf. Van Valin and Lapolla 1997)) as well as participants involved in the situation. A good understanding of the semantic content of predicating elements will give a much clearer picture of both the syntactic and semantic relationships which hold between predicates and their NPs. Following a tradition dating back to Aristotle, Van Valin and Lapolla (1997:83) propose four basic types of states of affairs which predicates encode. (Note that states of affairs refer to phenomena in the world). They are:

- a) *Situations*: static, non-dynamic states of affairs which may involve the location of a participant (e.g. a book being on the table), the state or

condition of a participant (e.g. Maria being tired), or an internal experience of a participant (e.g. Fred liking Alice).

- b) *Events*: state of affairs which seem to happen instantly (e.g. balloon popping, a glass shattering).
- c) *Processes*: states of affairs which involve change (and take place) over time (e.g. a book falling to the floor), in state or condition (ice melting, water freezing, clothes drying), or in the internal experience of a participant (e.g. John learning French).
- d) *Actions*: dynamic states of affairs in which a participant does something (e.g. John singing, the ball rolling).

Van Valin and Lapolla add that these basic states of affairs can vary along a number of dimensions which include: how many participants there are, whether there is a terminal point, and whether the state of affairs happens “spontaneously” or is “induced”.

Some states of affairs may have one or more participants, while in some others, it is possible to have large number of participants (e.g. John bought the book from Mary for Peter with some money). Having a terminal point is a feature of states of affairs that inherently come to a conclusion. Events, for example, have an inherent terminal point (e.g. balloons popping). As argued by Van Valin and Lapolla, it is, however, possible for a given event to happen over and over again (iteratively). Situations, on the other hand, do not have inherent terminal point. Thus, there is nothing in the nature of say being on the table that implies that this situation should continue. Actions also are unbounded; hence, there is nothing in the nature of singing or swimming, for instance, which entails that it must terminate in some way unlike **exploding** or **shattering**. Similar to situations, actions can cease, but they need not (e.g. earth spinning on its axis). Processes, however, do have inherent terminal points. For instance, after a given period of time, **ice will have completed melting and turned into water** or **clothes will have completed drying and become dry**. The result of a process may be a situation (e.g. clothes being dry).

Van Valin and Lapolla state that each of these states of affairs is usually expressed through a predicate, and the predicating element, normally a verb, describes the state of affairs type. Thus, the verb is a crucial element in the formation of constructions. However, the meaning expressed by a given verbal predicate relative to the participants within a construction is to a large extent based on the distinction in *Aktionsart* (German word for ‘form of action’) (Van Valin and Lapolla 1997). The term ‘*Aktionsart*’ was proposed by Vendler

(1967). It is used to refer to the inherent temporal properties of verbs. Vendler had argued that verbs and other predicating elements can be classified on the basis of their temporal properties. Kreidler (1998) adds that the term *Aktionsart* is used to refer to the inherent semantic features of predicates as found in the lexicon. Following Vendler (1967) and Van Valin and Lapolla (1997), we list the four basic classes of predicates which are states, achievements, accomplishments and activities. These four are also briefly explained below.

- *States*: states are non-dynamic and temporally unbounded. Examples (in English) include: be sick, be tall, be dead, love, know, believe, etc.
- *Activities*: activities are dynamic and temporally unbounded. Examples (from English) include: march, walk, roll (intransitive), read, eat (transitive), etc.
- *Achievements*: these encode instantaneous changes, usually changes in states but also changes in activities as well; they have an inherent terminal point. Examples (from English) include: pop, explode, collapse, shatter (all intransitive).
- *Accomplishments*: accomplishments are temporally extended (not instantaneous) changes of state leading to a terminal point. Again, examples (from English) include: melt, freeze, dry (the intransitive versions) recover from illness, learn (transitive versions), etc.

According to Van Valin and Lapolla, the four classes of predicate type can be defined in terms of three features. These features are [$\pm$ static], [$\pm$ punctual] and [$\pm$ telic] (cf. Hopper and Thompson 1980). The most obvious of these definitions is the fundamental distinction which exists between static and non-static verbs. This distinction divides predicates which encode a ‘happening’ from those that encode a ‘non-happening’ event. For instance, whereas the English verb **run** is [-static], the verb **believe** is [+static]. By this parameter of [$\pm$ static], activity, achievement and accomplishment predicates are [-static], while state predicates are [+static].

The feature [$\pm$ telic] is used to denote a predicate which describes a state of affairs with an inherent terminal point or not. For instance, an English sentence such as **Peter is tall** does not make any reference to a temporally bounded state of affairs and is therefore non-telic ([-telic]) or atelic. Similarly, in the sentence **Peter is running**, there is a reference to an activity. Hence, **running** like **rotating**, needs not terminate since, this is a function of the

progressive aspect. However, Van Valin and Lapolla observe that in the sentence **The clothes are drying**, the verb **dry** entails a terminal point at which the clothes will be dry. Thus, the verb **dry** (intransitive) is [+ telic], while the verb **run** is [- telic]. Also, the English sentences such as: **The bomb exploded**, **The glass shattered**, **The ice melted** have a terminal point. The terminal point is the moment of the **explosion**, **shattering** or **melting**. Therefore, these verbs **explode**, **shatter** and **melt** are [+ telic] as well. With respect to the feature [$\pm$ telic], the four forms of action typical of a predicate are classified as shown below.

- States (unbounded) = [- telic] (e.g. be tall, be sick, be , etc)
- Activities (unbounded) = [- telic] (e.g. run, eat, kick, etc.)
- Achievements (bounded) = [+ telic] (e.g. pop, explode, shatter, etc)
- Accomplishments (bounded) = [+ telic] (e.g. melt, freeze, etc.)

The feature [$\pm$ punctual] is used to make a distinction between [+ telic] events with internal duration from those which lack internal duration. For example, the verbs **melt** and **pop** involve changes in state, as in **The ice melted** and **The balloon popped**. However, they differ in that the event expressed by the verb **melt** takes place over a time span, while the event expressed by the verb **pop** is immediate and instantaneous for all practical purposes. States and activities are atelic and also by definition, they involve temporal duration and are therefore always [- punctual]. With respect to the feature [$\pm$ punctual], the four types of predicate are categorized, as shown below:

- State = [- punctual]
- Activity = [- punctual]
- Accomplishment = [- punctual]
- Achievement = [+ punctual]

Van Valin and Lapolla further add that there is a sub-division among [-static] verbs. This sub-division is with respect to the feature [$\pm$ dynamic]. Whereas activities are [+ dynamic], achievements and accomplishments are [- dynamic] since (in English and so many other languages) they do not occur with adverbs (e.g. actively, dynamically, vigorously) that encode dynamic action. The feature [+ dynamic] does not apply to states because states are [+ static].

According to Van Valin and Lapolla (1997:92), each of these types of predicate (state, activity, achievement and accomplishment) corresponds to one of the four basic states of affairs. This correspondence is shown in (40).

40)

<i>Predicate type</i>	<i>Corresponding State of affairs type</i>
State	Situation
Achievement	Event
Accomplishment	Process
Activity	Action

The correspondence between each of the predicate type and its state of affairs highlights the importance of the typology of states of affairs. The distinction among states of affairs is reflected to a striking degree in distinctions among predicate types. For instance, situations are expressed by state predicates, events are expressed by achievement predicates, processes are expressed by accomplishment predicates, while actions are expressed by activity predicates. Van Valin and Lapolla draw an important distinction between the properties of states of affairs and properties of predicating elements. In fact, the properties of linguistic predicates refer only to their inherent temporal properties. Thus, properties of linguistic predicates include primarily their semantic representation in the lexicon. On the other hand, predicating elements and participant NPs constitute the properties of state of affairs. However, the addition of prepositional phrases (PPs) or adverbials often results in a different semantic interpretation for the predicate in the context of the entire clause which depicts a particular state of affairs. Hence, it is often the case that a given predicate can be used with more than one semantic interpretation to signal a particular state of affairs.

The states of affairs types which are based on the different predicate types (which consist of inherent semantic features or temporal properties) can occur spontaneously or be induced. An induced state of affairs has a causative reading and in fact, is a causative construction. As can be observed from (41), an induced state of affairs or causative construction differs from its spontaneous or non-causative counterpart in having an additional participant NP that is directly or indirectly responsible for bringing about the state of affairs expressed.

41)

<i>Predicate Type</i>	<i>State of Affairs Type</i>	<i>Spontaneous State of Affairs</i>	<i>Induced State of Affairs</i>
a. State (e.g. be afraid)	Situation	The boy is afraid	The dog makes the boy afraid
b. Achievement (e.g. pop)	Event	The balloon popped	The boy popped the balloon

c. Accomplishment (e.g. melt)	Process	The ice melted	The boy melted the ice
d. Activity (e.g. roll)	Action	The ball rolled across the room	The boy rolled the ball across the the room

Also from (41), it is obvious that an induced state results in a causative state, while an induced achievement results in a causative achievement. Similarly, whereas an induced accomplishment results in a causative accomplishment, an induced activity results in a causative activity. All the causative or induced types of state of affairs principally differ from their spontaneous or non-causative counterpart, by having each a syntactic causative paraphrase. Thus (42a-d) are syntactic paraphrases of the induced state of affairs constructions in (41a-d) respectively.

- 42 a) The dog causes the boy to be afraid.
 b) The boy caused the balloon to pop.
 c) The boy caused the ice to melt.
 d) The boy caused the ball to roll across the room.

Note that the paraphrases have the same number of NPs as the original causative sentences bring paraphrased.

Based on our review and discussion on predicate types and the nature of the states of affairs they encode, we have noted that a predicate type based-construction can express a spontaneous or an induced state of affairs. We observed that an induced state of affairs type of construction is causative in nature and we have arrived at four classes of causative verbs based on their predicate type. They are: causative state, causative achievement, causative accomplishment and causative activity. One or the other of these causative verbs is always used in constructions expressing a causative state of affairs. Thus, a causative verb whether syntactically, morphologically or lexically based belongs to one of the four basic causative classes. This can be illustrated using the English sentences in (43).

- 43 a) John **enlarged** the room.
 b) The hot water **caused** the ice to melt.
 c) John **killed** the snake.
 d) John **rolled** the ball down the hill.
 e) John **frightens** his friends.

The verbs **enlarge**, **cause**, **kill**, **roll** and **frighten** as used in (43a-e) are all causative. Structurally, the verbs **kill** and **roll** are lexical causatives, while the

verbs **enlarge** and **frighten** are morphological causatives. The verb **cause** in (43b) is also a lexical causative though it is involved in a syntactically based causative construction. Semantically, the verbs **cause**, **kill**, and **roll** are causative activity verbs, while the verb **enlarge** is a causative achievement verb. The verb **frighten** is a causative state, while **melt**, the verb of infinitive complement clause in (43b) is a non-causative accomplishment verb.

2.2.2 Immediate and Mediated Causations

There is one relevant semantic parameter in a causative construction involving a cause(r) (person, thing, force) and a situation brought about by the cause(r) (Comrie 1985b:332). This parameter has to do with the degree of closeness between the cause (the causer's action) and the effect (resultant situation). Comrie points out that in English for instance, both (44a) and (44b) imply that **the stick broke**.

- 44 a) John broke the stick
 b) John caused the stick to break.

He notes, however, that there is a potential semantic difference between (44a) and (44b). While (44a) implies an immediate connection between John's action and the breaking of the stick (which John could have done by standing on the stick, or by snapping the stick with his fingers), (44b) does not imply an immediate connection between John's action and the breaking of the stick. Rather, (44b) according to Comrie, suggests a mediated chain of events (for instance, John could have pushed a stone that fell on the stick). The same distinction also holds between **kill** and **cause to die** in (45), where (45a) implies an immediate connection between John's action and the death of the dog, while (45b) does not.

- 45 a) John **killed** the dog.
 b) The caused the dog to die.

Although an absolute distinction between mediated and immediate causation is not easy to draw, Comrie argues that where a language has both analytical and morphological or lexical causatives, it is always the analytical causative that implies less direct causation than the morphological or lexical causative. This is true of English, as we observe in examples (44-45). The same situation has also been reported in Russian (Comrie 1985b:333), as the examples in (46) show.

- 46 a) Anton slomal paločku
 'Anton broke the stick'

- b) Anton sdělal tak, čtoby paločka slomalaś
 ‘Anton brought it about that the stick broke’

The same mediated or immediate distinction which holds between analytical and morphological or lexical causative, also holds between lexical and morphological causatives. The lexical causative, unlike the morphological one, implies greater closeness between cause and effect. This distinction has been observed in Nivkh which makes use of lexical and morphological causatives (Comrie 1985b:333). The data in (47) illustrate further.

- 47 a) If lep seu-d’
 he bread dry-(TRANS)
 ‘He dried the bread’
- b) If lep če-gu-d’
 he bread dry-CAUSE-(INTRANS)-CAUSE
 ‘He caused the bread to get dry (e.g. by forgetting to cover it)’

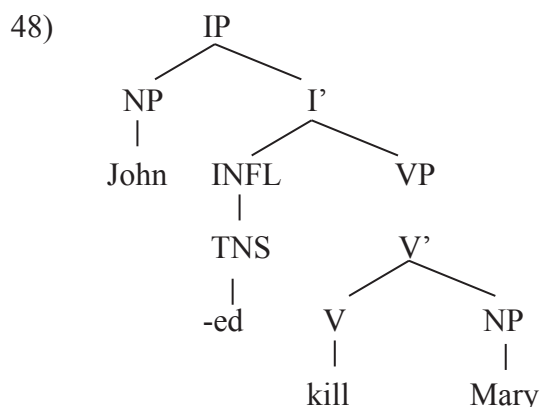
Based on the observations from the data in (44-47), Comrie concludes correctly that the scale analytical-morphological-lexical causative correlates with the scale mediated-direct causation.

2.2.3 Causativity and Agentivity

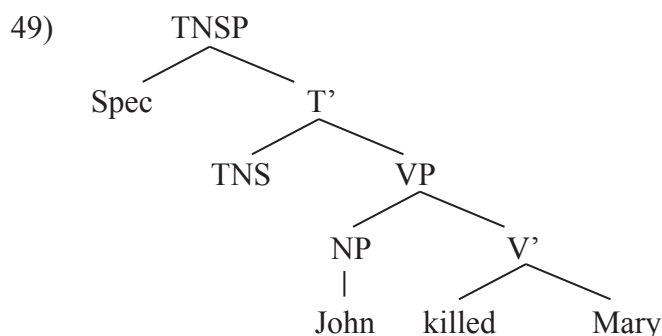
The notion of causativity, as observed by Spencer (1991), is related to the rather ‘slippery’ notion of agentivity. This is because both spontaneous and causative (induced) states of affairs in addition to predicates with which they are expressed, comprise participants or arguments (NPs) which play certain roles. These roles which participants play have been referred to as semantic roles, case roles, thematic roles (Lexical Functional Grammar), theta roles (Government and Binding) (cf. Chomsky 1986a). Theta roles (θ-roles) “are lexico-semantic features of predicates which designate the way in which their arguments participate in the eventuality they describe” (Roberts 1997:287). The justification for the inclusion of semantic or thematic roles in grammatical analysis is hinged on the fact that the grammar of a language should not only give information about the categorial, subcategorization and selectional features of lexical items but also provide thematic information about lexical entries (cf. Gruber 1965, Fillmore 1968, Chomsky 1981, 1986a, Koopman 1983, Sells 1985, Horrocks 1981, Radford 1988, Ndimele 1992).

The semantic relations between a predicate and its arguments (which designate the theta roles in the state of affair denoted by the sentence) are known as thematic relations. Theta roles are assigned to arguments (nominal

positions), and the positions to which theta roles are assignable are known as A(argument) positions. Positions which are not accessible to theta role assignment are known as $\bar{A}$ -positions (non-argument positions); hence, they are not theta positions. All A-positions, however, may not correspond to theta-positions. For instance, verbs in both passive and raising constructions may cause their grammatical subject positions to be inaccessible to theta role assignment. An argument may be external or internal. Whereas the external one is licensed and assigned a theta role compositionally by its VP (Sells 1985, Chomsky 1986a, Radford 1988), the internal argument is licensed and assigned theta role by the verb. The external argument is defined as the syntactic argument external to the VP (Chomsky 1986a) and immediately dominated by the IP (Inflection phrase). The internal argument is the syntactic argument internal to the VP; it is a sister to the verb and directly dominated by V-bar. In (48), for instance, **John** is the external argument, while **Mary** is the internal argument.



However, with the development of the VP-internal subject hypothesis within the Minimalist Program, the definition of the external argument has been changed. The external argument, just like the internal one, is licensed internally within the VP prior to movement (cf.49).



The internal argument is still a sister to the verb and directly dominated by V-bar, but the external argument is now the argument external to the V-bar, not the VP, and is directly dominated by VP, not IP (which has been split into multiple functional categories).

Ndimele (1992:30) notes that “studies from the syntax of different languages seem to suggest that thematic functions are finite” and that it seems “that the set of thematic functions assumed to constitute the primitive elements of the associated theta theory vary from language to language or analyst to analyst”. Kreidler (1998:82) also notes that there are “differences in the number and names different writers give to semantic roles recognized”. Following Van Vailin and Lapolla (1997:85), we have listed some common theta roles below. Note that an argument with a particular theta role has been presented in bold print.

Agent: A willful, purposeful instigator of an action or event.

Example: **John** broke the glass.

Effector: The doer of an action, which may or may not be willful or purposeful.

Example: **John** broke the glass accidentally

Experiencer: Sentient beings that experience internal states, such as perceivers, cognizers and emoters.

Example: **John** thinks about the question.

Instrument: Normally inanimate entities manipulated by an agent in the carrying out of an action.

Example: John broke the window with a **stone**.

Force: Somewhat like instrument, but they cannot be manipulated. They can include things like tornados, storms and acts of God.

Example: **The Flood** washed away the village.

Patient (affected): Things that are in a state or condition to undergo a change of state or condition.

Example: John hit **Mary**.

Theme: Things that are located or undergoing a change of location (motion).

Example: **The book** is on the table

Benefactive: The participant for whose benefit some action is performed.

Example: John bought **Mary** a dog

Recipient: Someone who gets something (recipients are always animate or some kind of quasi-animate entity).

Example: Peter sent a card to **John**.

Goal: The final destination of a theme or the location towards which something moves.

Example: John sent the letter to **Aba**.

Source: The point of origin of an entity.

Example: David came from **Lagos**.

Location: The place in which some entity is situated (the resting place of an entity).

Example: John is in the **kitchen**.

Path: The point or route through which some entity moves.

Example: James jogged along **the lane**.

The list of the theta roles is by no means exhaustive, but we have introduced some of the common theta roles associated with some state of affairs. Again, the role a particular argument plays is crucially a function of the type of state of affairs in which it is involved. This is because, it is not possible to separate participant roles from the states of affairs in which they occur. Thus, it is the state of affairs which are fundamental (basic), while the participant roles are derived. The implication of this is that it is possible to derive participant roles by analyzing states of affairs, but the converse is not the case, since participant roles cannot be defined without reference to the states of affairs.

The theta role ‘agent’ is usually associated with agentive constructions. An agentive construction is a type of construction where one of the arguments,

the agent, is specified as being a willful, purposeful instigator of an action or event. Consider the examples in (50) where **Peter**, **John** or **Mary** is the agent.

- 50 a) Peter hit James.
 b) John ate the food.
 c) Mary read the book.

However, as stated earlier, the notion of causativity is related to the notion of agentivity. Whereas all causative constructions are agentive, not all agentive constructions are causative. Thus, agentive constructions are typically of two types: causative agentives and non-causative agentives. The subject **Peter**, **John** or **Mary** in (50) is an example of a non-causative agent. The predicates (e.g. hit, eat, read, etc.) of such non-agentive subjects do not lend themselves to the analysis as realizations of verb + cause; hence, they are referred to as “basically transitive” verbs (Lyons 1968:384), which yield basic transitive constructions in the sense that they have both a deep and surface structure object.

Illustrating the causative agentive construction, Lyons (1968:352) cites the following examples in (51) which involve the verb **move**.

- 51 a) The stone moved.
 b) John moved.
 c) John moved the stone.

Lyons argues that in (51a) and (51b), the verb **move** is intransitive, while in (51c) it is transitive, having being derived from (51a). He adds that the term that is generally employed by linguists for the syntactic relationship that holds between (51a) and (51c) is “ergative”: the subject of an intransitive verb becomes the object of a corresponding transitive verb and a new “ergative” subject is introduced as the “agent” (or ‘cause’) of the action referred to. Lyons further adds that the data in (51) “suggest that a transitive sentence like (51c), may be derived syntactically from an intransitive sentence like (51a), by means of an ergative or causative transformation. The agentive causative construction, therefore, has a cause(r) (Comrie (1985b:332), Guasti (1997:124)) agent (person, thing, force) that brings about the situation described by the predicate.

Depending on the semantic as well the syntactic nature of an agentive causative construction, there may be in addition to a causative agent, a causee (Guasti 1997) or “an actor” (Kreidler 1998) whose own action may or may not affect any other entity, as in (52a) or just a patient, as in (52b).

- 52 a) John made Mary work hard/John made Mary eat the food.
 b) John made the balloon pop/John popped the balloon.

In (52a-b), **John** is the causative agent, **Mary**, the causee, while in (52b) the **balloon** is the patient. The causative agent (cf. 52) or the non-causative agent (cf. 50) is involved in an action that has some effect on some other entity (normally the causee or patient). The causee's relationship to any other entity depends on the transitivity nature of the predicate that subcategorizes it.

A causative agentive construction, according to Comrie (1985b), has an anticausative counterpart. In the anticausative construction, the causee NP or patient which hitherto was the object of the causative construction, functions as a grammatical subject of the derived anticausative sentence. In the derived anticausative, the verb is superficially intransitive, since the causative agentive subject is not overtly expressed. In this regard, the anticausative counterparts of (52a) and (52b) are (53a) and (53b) respectively.

- 53 a) Mary worked hard/Mary ate the food.
 b) The balloon popped.

For the non-causative agentive construction (cf. 50) the action expressed cannot occur spontaneously without a direct involvement of the agent; hence, the agent is not a cause(r) agent. Therefore, there is no grammatical anti-causative construction for the non-causative agentive construction. This accounts for the ungrammaticality of (54) compared with (50).

- 54 a) *Mary hit.
 b) *The food ate.
 c) *The book read.

Thus, the major difference between a causative agentive construction and a non-causative one is the existence of an anticausative construction for the former.

2.2.3.1 Actor: The Generalized Agent-type Role

In addition to the semantic or theta roles which we have listed above, Van Valin and Lapolla (1997:141) discuss what they refer to as generalized semantic roles. According to them, the generalized semantic roles are thus, designated, because each of them subsumes a number of specific argument types and they are known as semantic macro roles. Van Valin and Lapolla illustrate the idea of semantic macroroles, by citing the range of argument types that can function as subjects and objects in English. The argument types for subject have been presented in bold prints in (55a-d), while those for objects have been given bold prints in (55e-h).

-
- 55 a) **Fred** broke the window.
 b) **The bomb** destroyed the car.
 c) **Mary** received a parking ticket.
 d) **The farm animals** sensed the earthquake.
 e) Max gave **the book** to the teacher
 f) The tidal wave destroyed **the harbour**.
 g) The rock hit **the wall**.
 h) The thief robbed **Tom** of his money.

Van Valin and Lapolla observe that in (55a-d), four different argument types have been treated as subjects, while in (55e-h), five different argument types have been treated as direct objects. They argue that the groupings of arguments which occur as subjects and objects in (55a-d) and (55e-h) respectively capture semantic arguments which are treated alike in the grammar of English. The group which occurs as subject in (55a-d) indicate doers of an action in some general sense. The other group which occurs as object seems to comprise semantic arguments affected by an action (for instance, themes and patients function alike for some reasons in the grammar). Nevertheless, Van Valin and Lapolla further argue that it is always the case that arguments within a group are distinguishable on semantic grounds even though the grammar for syntactic purposes treat these arguments as essentially the same. In English, for instance, patient, theme, recipient, source or location arguments can be direct object of active sentences and subjects of passive sentences. In the same vein, agent, experiencer, instrument, recipient, source or force arguments can be subjects of active sentences and also objects of the preposition **by** in passive structures. Van Valin and Lapolla therefore note that it is not by accident that the different arguments which can occur as objects of active sentences and as subjects of passive sentences seem to group together just as different semantic arguments which can occur as subjects of active sentences and objects of the preposition **by** seem to group together. They claim that this obvious generalization can be captured in terms of generalized semantic roles (semantic macroroles). In English, and in grammatical function terms, the generalized agent-type role functions as subject in active sentences, while the generalized patient-type role functions as object. In passive constructions, however, the generalized agent-type role functions as object of the preposition **by**. The agent type role is referred to as **actor** (Van Valin and Lapolla (1997:141), Lyons (1968:352)) while the generalized patient-type role is referred to as undergoer (Van Valin and Lapolla 1997:141).

Accordingly, the actor can function as the subject and depending on the nature of the verb, can be an agent, an experiencer, an instrument, a recipient, source or force. Similarly, the undergoer is the direct object in active sentences. The undergoer will be a patient with an active verb like **kill**, but a

theme with a verb like **put**. The fact that the generalized agent-type role subsumes agent, experiencer, instrument, etc., shows that the specific interpretation of an argument is a function of the semantics of the predicate licensing the argument. Thus, the fact that the actor of a verb like **see** is a perceiver is a function of the semantics of **see**. Similarly, the fact that the verb **kill** takes an agent as its actor and a patient as its undergoer is also a function of the semantics of the verb **kill**. Based on these facts, it is obvious that actor does not necessarily mean agent, but rather something much more general. It is perfectly compatible with volitional (e.g. agent, experiencer) and non-volitional (e.g. instrument) entities. In the same vein, it is also the case that the semantic arguments that may be grouped together as undergoers can be either volitional and non-volitional entities. Van Valin and Lapolla conclude their discussion on the semantic macroroles by adding that both actor and undergoer are quite different from the grammatical function positions of subject and object respectively, though either the actor or the undergoer may be the subject of a sentence in English. Actor and undergoer are mere generalizations across classes of specific argument position in logical structure. These generalizations are not unique to English alone. They are attested crosslinguistically.

2.2.4 Ergativity and Causativity

Ergativity (in its restricted meaning) and causativity are not one and the same concept. However, certain usages of ergativity and causativity are related. The term ‘ergativity’ has been given various but related interpretations in linguistic literature. First, it is used in the discussions and analyses of linguistic phenomena relating to case marking of argument NPs and verbal agreement in ergative languages. In an ergative language, the subject NP of a transitive verb is distinctively case-marked morphologically as ‘ERGATIVE’, while intransitive subjects and direct objects are morphologically marked as ‘ABSOLUTIVE’ (Trask 1993). Thus, within the ergative-absolutive distinction of case-marking, subjects of transitive verbs are differently treated, while subjects of intransitive verbs and direct objects of transitive verbs are identically treated for grammatical purposes (Comrie 1976a, Dixon 1979, Carrier and Randall 1992). It is pertinent to note however, that Anderson (1971) earlier refers to the subjects of canonical transitive verbs in ergative languages as agents.

In the second sense of the term, especially within the GB framework, the notion of ergativity is sometimes applied to some unaccusative verbs. The term ‘unaccusative’ is used to refer to intransitive verbs or predicates or constructions involving verbs or predicates whose subject NP is not an agent or (sometimes) an actor. Rather, the surface NP subject is underlyingly a (direct) object (Trask 1993:290). According to Trask, “unaccusative predicates exhibit distinctive grammatical behaviour in some languages, for example by taking

postverbal subjects while other intransitives take preverbal subjects”. This idea, according to Roberts (1997:73), has come to be known as the unaccusative hypothesis, and it is associated with Perlmutter (1978, 1983) and Burzio (1986). The unaccusative hypothesis states that the single argument of **some** intransitive verbs is an underlying object. The intransitives with a single-object argument are known as unaccusatives (e.g. arrive, melt, die, explode, fall, vanish, etc.) while those that have a surface-subject argument are usually called unergatives (e.g. run, jump, dance, reside, etc.) (Robert 1997:73). The single-subject argument of an unergative verb is usually an agent NP or (sometimes) an actor (Trask 1993:291). Unaccusatives, like passive participle, are unable to assign accusative case to their objects; hence, according to Roberts (1997), they are literally unaccusatives. As a result of this lexical property, Roberts argues that the object NP must undergo movement to a case position, else it will violate the case filter. This is the case with the object of a passive participle. The sentence in (56) (from Roberts 1997:74) involves movement of **Mary** from the underlying object position to the subject position.

56) Mary_i has arrived t_i

The implication of a sentence such as (56) being that the single argument of an unaccusative verb is both a subject and an object. “It is the subject in terms of its syntactic position and morphological marking (as in subject-verb agreement in English) while it bears an object theta role which is indicated by the trace in object position” (Robert 1997:74).

Within the class of unaccusatives is a subgroup known as ergative verbs which can function both transitively and intransitively (Burzio 1981, Keyser and Roeper 1984). Some of these verbs include **melt**, **dry**, **open**, etc. The transitive use of the ergative verbs are exemplified by the sentences in (57), while their intransitive use are, as in (58).

- 57 a) John melted the ice.
 b) John dried the salt
 c) John opened the door.

- 58 a) The ice melted
 b) The salt dried
 c) The door opened.

The subject NPs in (57a-c) are referred to as ergative subjects, because they are subcategorized by ergative verbs. The data in (57) and (58) also reflect the observation that the object NPs in (57a-c) can also function as either transitive

objects or as intransitive subjects as in (58a-c). The variation of grammatical function displayed by these NPs as objects or subjects triggers no change in the morphology of the verbs or the NPs themselves, much as happens regularly in morphologically ergative languages. Trask (1993) therefore, concludes that ergativity in the second sense (within GB) of its usage effectively equates with a subclass of causatives. Thus, some languages (including English and Igbo) though not ergative by having morphological markings, are described as having ergative constructions and ergativity in this sense is equated with causativity.

In this book, we shall use the term ‘ergativity’ in its second sense, that is, to mean causativity where it is applied in the description and analysis of verbs which can function both transitively and intransitively in different contexts without necessarily any morphological marking.

2.3 Changes in Valency and Grammatical Relations

The number of arguments that a predicate has is called the valency of that predicate; and an account of the generalization that covers this issue of how many arguments a predicate takes is known as the valency theory. Valency theory which was introduced in Tesnière (1953) and Hockett (1958) has been extensively developed by Fillmore (1968), Allerton (1975), Jackendoff (1990), Anderson (1985) and Ravin (1990).

There are two types of valency of a predicate: syntactic valency and semantic valency. The syntactic valency of a verb (note that we are not limiting the term ‘predicate’ to mean a verb in this discussion), according to Van Valin and Lapolla (1997:147), is the number of overt morphosyntactically coded arguments that the verb takes. Semantic valency, on the other hand, refers to the number of semantic arguments that a particular predicate can take. The semantic and syntactic valency of a verb need not coincide. This is because syntactic valency is concerned with syntactically coded NP positions, while semantic valency is concerned with a description of the semantic potentials of predicates in terms of the number and types of arguments which may occur with them.

Van Valin and Lapolla illustrate the difference between syntactic and semantic valency using the English verbs **rain**, **die**, **eat** and **put** as in (59)

59)

<i>Verb</i>	<i>Example in a sentence</i>	<i>Semantic Valency</i>	<i>Syntactic Valency</i>
rain	It rained	0	1
die	John died	1	1
eat	Mary ate/Mary ate the food	2	1 Or 2
put	John put the books on the table/John put the books away.	3	3 or 2

The data in (59) clearly show the non-correspondence of semantic and syntactic valency. A predicate may have a syntactic or semantic valency of one, two or three. From (59), it is obvious that the verb **rain** has no arguments semantically, but because all simple English clauses must have subjects, it has a syntactic valency of one. The verb **eat** can have one or two syntactic arguments, but it has two semantic arguments. The verb **put** can have three semantic arguments, while it can have three or two syntactic arguments. The verb **die** has only one syntactic and one semantic argument. Thus, it is the case that one finds that a given verb can occur with a different number or arrangement of its NP arguments in semantically well-formed sentences. Again, the following examples in (60) from Comrie (1985b:312) illustrate further.

- 60 a) John is boiling water.
 b) The water is boiling.
 c) Mary is reading the book.
 d) Mary is reading.
 e) Mary is reading the book to John.

From the examples in (60), it is obvious that there can be a change in the valency of the verbs **boil** and **read**. Also the examples reveal that the forms of the verb **boil** and **read** do not change to signal the different valencies of the verb in the sentences. However, in some languages, verbs are marked for such changes in valency.

Some grammatical and morphological processes can also be described in terms of changing the valency of verbs. Some of these morphological and syntactic processes can reduce, increase or even bring about a rearrangement in the valency of verbs. Thus, morphological and syntactic mechanisms of varying degrees of systematicity are utilized in many languages to indicate such changes of valency and indeed changes in grammatical function. In the sections that follow, we shall attempt a review of some of the language internal mechanisms that result in changes in valency and grammatical function. Let us first look at valency decreasing mechanisms.

2.3.1 Valency Decreasing Mechanisms

Valency reduction processes include passivization, anticausativization, reciprocalization and reflexivization (Comrie 1985b; Spencer 1991). The anticausative, reciprocal and reflexive constructions in (61b), (62b) and (63b) respectively are from Russian (Comrie 1985b:325-327) while the examples in (64b) and (65b) which exemplify passive formation are from Russian and English respectively (Spencer 1991:237).

-
- 61 a) Anton otkryl dver
 ‘Anton opened the door’
- b) Dver otkryla-s
 ‘The door opened’
- 62 a) Anton vstretil Nina
 ‘Anton met Nina’
- b) Anton i Nina vstretili-s (-sja)
 ‘Anton and Nina met’
- 63 a) Mat pomyla rebenka
 ‘The mother washed the child’
- b) Robenok pomyl-sja
 ‘The child washed (himself)’
- 64 a) Kolxoznik ubil utjonka
 farmer-NOM killed duckling-ACC
 ‘The farmer killed the duckling’
- b) Utjonok byl ubit (kolxoznikom)
 Duckling-NOM was killed (farmer-INSTR)
 ‘The duckling was killed (by the farmer)’
- 65 a) Dick broke the vases
 b) The vases were broken (by Dick)

As can be observed in (61), the anticausative process involves a derivation of an intransitive verb from a transitive causative construction. This anticausative process is achieved morphologically by suffixing to the verb of the transitive causative one, the suffix *-s*. Swahili has the derived intransitive **vunj-ika** ‘break’ from **vunja** ‘break (Comrie 1985b:325). The reciprocal construction in (62) shows a valency reduction from a transitive to an intransitive construction. With the reciprocal verb, subject and object functions of the basic verb are combined into a single compound subject.

A reflexive construction is one in which the subject and object refer to the same person (or thing). An explicitly reflexive sentence is one in which the identity of the subject and object is overtly marked either in the form of object pronoun or some other way. (e.g. by the use of a particular affix attached to the verb stem). Example (63b) illustrates a reflexive verb that is formed by a

morphological process from a non-reflexive verb. The non-reflexive construction in (63a) shows that the subject and the direct object are different coreferentially. For the derived reflexive construction in (63b), only the subject is expressed overtly, while the reflexive suffix **–sja** indicates that the subject functions equally as the direct object. Similarly, the passive constructions in (64) and (65) from Russian and English respectively show that by adding the passive morpheme to a transitive verb, we can obtain a verb form with one argument less. Thus, the transitive **break** or **ubil** in (64a) or (65a) becomes the intransitive passive form **broken** or **byl ubit** in (64b) or (65b). In each of the passive sentences in (64b) and (65b), the logical subject is demoted to occur as an optional oblique phrase or adjunct, while the logical object is promoted to become the grammatical subject. The passive in English is also capable of reducing the valency of a ditransitive verb, making the verb appear monotransitive as in (66b) and (66c).

- 66 a) Tom gave Harriet a rose
 b) Harriet was given a rose (by Tom)
 c) A rose was given to Harriet

Comrie further adds that the anticausative construction is similar to the passive in many ways. For instance, both types of construction typically have their direct object appearing as the subject (of the anticausative or passive). Comrie, however, notes that there is a difference between the two types of construction. This difference has to do with the fact that in some languages, (e.g. English and Russian) the subject of the basic verb can appear as an agentive **by-phrase** in the passive. Based on this observed difference, Comrie concludes that the passive construction in English and Russian, unlike the anticausative, is a valency rearrangement process rather than a valency decreasing one (though it can also be considered as a valency decreasing phenomenon when the ‘by’ PP is optionally deleted), while in German, Polish and Latin (Spencer 1991:239) the passive is a valency decreasing mechanism (cf. 67, 68 and 69).

- 67) Es wurde getanzt
 It became dance – PASSIVE
 ‘People danced/were dancing.’
- 68) Bylo chodzone
 was-NEUTER – sg – walk –PASSIVE–NEUTER - sg
 ‘People were walking about’
- 69) Garritur
 run-LPASSIVE/3sg
 ‘People run’

In the examples in (67), (68) and (69) the valency of each of the verbs has been reduced from one to zero. There is a suppression of the subject but no promotion of the object or complement because there is none. The resulting construction is referred to as an impersonal passive.

2.3.2 Valency Increasing Mechanism

Applicatives, possessor raising and causatives are among the valency increasing mechanisms. Though our focus is on causatives, we shall briefly look at applicatives and possessor raising.

2.3.2.1 Applicatives

Applicative is one of the well-known derivational processes leading to an increase or a rearrangement of object complements. This phenomenon has been reported in the Bantu languages (Marantz 1984, Comrie 1985b) and even other languages (e.g. Igbo (Nwachukwu 1987)). The applicative construction is achieved by the use of the applicative suffix (APPL) which increases the valency of the basic verb. The commonest semantic roles of the additional NP argument (applied object) are benefactive (or, with semantically appropriate verbs, the opposite of this, i.e. to someone's detriment), recipient, motion (towards) (Comrie 1985b:316). The examples in (70) and (71) are from Swahili (Comrie 1985b:316-317) and Igbo (Ogbonna 1999:42) respectively.

- 70 a) Musa a-li-andika barua
 Musa he-PAST-send- letter
 ‘Musa sent a letter’
- b) Musa a-li-ni-andika -a barua
 Musa he-PAST-me-send-APPL letter
 ‘Musa sent me a letter’
- 71 a) Ezè mgbùùrù ànyị egbu
 Eze pr-kill-APPL-PAST us goat
 ‘Eze killed a goat for us’
- b) Ezè ñnyèèrè m̀ Ìda ego
 Eze pr-give-APPL-PAST me Ada money
 ‘Eze gave Ada money on my behalf’

Note that in (70) or (71) a verb such as **andika** ‘send’ or **gbu** ‘kill’ which inherently requires an object complement acquires the capacity to take an additional object complement from the applicative suffix (cf 70b, 71a), while an inherently three-place argument verb like **nye** ‘give’ when combined with

the applicative suffix, becomes a four-place argument verb (cf 71b). Other languages that make use of applicative verb forms include classical Nahuatl, Luganda and Wolof (Comrie 1985b).

2.3.2.2 Possessor Raising

The phenomenon of possessor raising also increases the valency of a verb. The data in (72) and (73) which exemplify possessor-raising constructions are from Chichewa (Baker 1988) and Luganda (Katamba 1993) respectively.

- 72 a) Fisi a-na-dy-a nsomba za kalulu
 hyena Sp-PAST-eat ASP fish of hare
 ‘The hyena ate the hare’s fish’
- b) Fisi a-na-dy-er-a kalulu nsomba
 hyena-SP-PAST-eat-(APPL)-ASP-hare fish
 ‘The hyena ate the hare’s fish’
- 73 a) A-li-menya okugulu kwa Kapere
 S/he-FUT-break-leg of Kapere
 ‘S/he will break Kapere’s leg’
- b) A-li-menya Kapere Okugulu
 S/he-FUT-break-(APPL) Kapere leg
 ‘S/he will break Kapere’s leg’

In both (72a) and (73a), there is a possessor NP inside an object complement to the verb. In (72b) and (73b), however, the possessor NP has been ‘raised’ to become the direct object of the verb. Note that unlike the applicative affixes for the applicative constructions, the possessor affix is implicated.

2.3.2.3 Causatives and Valency Changes

The most researched of the operations which increase the valency of the verb is the causative construction (Spencer 1991) and most of the research efforts on causatives have been devoted to accounting for the morphology and syntax of verbs formed from other verbs. The causative situation always implies an additional NP. This additional NP is the cause(r); the agent that brings about the causative situation. Thus, by the addition of the causative agent, the potential valency of a causative verb is one argument greater than its non-causative counterpart. Comrie (1985b) points out that few languages tolerate predicates with more than one subject NP. The implication of this is that the subject of the non-causative verb (the causee) cannot appear as a subject of the causative verb. When it does, it must appear as some other syntactic argument

of the causative construction. Also, there is the possibility that the causee can be omitted, especially when it is indefinite or recoverable from context. This is normally the case with causatives based on transitive or ditransitive verbs. The Songhai (Sonrai) data in (74b) and (75b), according to Comrie (1985b:335), show that the causee can be overtly absent but contextually recoverable.

- 74 a) Musa nga tasu di
 Musa eat rice the
 ‘Musa ate the rice’
- b) Ali nga-ndi tasu di
 Ali eat-CAUSE rice the
 ‘Ali got someone to eat the rice’
- 75 a) Hasan neere bari di Musa se
 Hasan sell horse the Musa IO (Indirect object)
 Hasan sold the horse to Musa
- b) Ali neere-ndi bari di Musa se
 Ali sell-CAUSE horse the Musa IO
 Ali got someone to sell the horse to Musa’

The valency changes brought about by causativization involves a three-way valency distinction among the basic non-causative verbs which are the intransitive, monotransitive and ditransitive. The analytical (syntactic) causative is productive with the three classes of the verbs, while the lexical causative is not productive with the verbs since there is no regular pattern which can be used to extend the new lexical items. Of these three classes of verbs, it is only with the verbs of lower valency that morphological causatives can be formed in most languages. In this regard, Comrie (1985b) observes that Latin, for instance, has causative monotransitive verbs formed from intransitive verbs (e.g. **fugere** ‘to flee’→ **fugare** ‘to put to flight’), but does not have causative counterparts of monotransitive or ditransitive verbs. Also, Comrie further adds that Chuckchee, as in (76) and Turkish, as in (77) allow morphological causatives to be formed from intransitive and monotransitive verbs. Turkish in addition, unlike Chuckchee allows the causative of a ditransitive verb. (cf. 77 e & f).

- 76 a) melev-ək ‘to get better’ (intransitive)
 b) re-melev-ək ‘to cure’ (causative of intransitive)
 CAUSE

-
- c) l^ɔu-k ‘to see’ (monotransitive)
- d) rə -l^ɔu-ŋet-ək ‘to show’ (causative of monotransitive)
CAUSE
- 77 a) öl ‘die’ (intransitive)
- b) öl-dur ‘kill (causative of intransitive)
CAUSE
- c) imzala ‘sign’ (monotransitive)
- d) imzala- t ‘cause to sign’ (causative of monotransitive)
CAUSE
- e) goster ‘show’ ‘ditransitive’
- f) göster- t ‘cause to show’ (causative of ditransitive)
CAUSE

It is obvious from the examples in (76) and (77) from Chuckchee and Turkish that causativity introduces an additional argument such that intransitive verbs become monotransitive, monotransitive verbs become ditransitive, while the causative of a ditransitive verb is a “tritransitive” verb, though not necessarily a natural valency-type like the causative of the monotransitive.

One characteristic feature of most languages with morphological causatives is the fact that it is always the **causee** that has its grammatical function changed in order to fit in with increased valency of the causative verb. The causee which is normally the subject of the basic verb does not remain to be the subject of the causative verb since this position is usurped by the causative agent. In the sections that follow, we shall, following Comrie (1985b), discuss briefly the causatives of the three basic classes of verbs (intransitives, monotransitives and ditransitives), drawing examples from different languages.

2.3.2.3.1 Causative of Intransitive Verbs

In the causative of an intransitive construction, the causative agent functions as the subject of the causative verb, while the causee NP appears usually as the direct object of the causative verbs. Examples of the causative of intransitive verbs can be found in English (Spencer 1991:252), as in (78) and Wolof (Comrie 1985b:325), as in (79). Note that the example from English in (78b) is a lexical causative (monotransitive) derived from the intransitive verb in (78a), while (79b) is a morphological causative (monotransitive) derived from the intransitive verb in (79a).

-
- 78 a) The tree fell
 b) Dick felled the tree
- 79 a) Nenne bi di na toog
 child the FUT. AUX (3sg) sit
 ‘The child will sit down’
- b) Di naa toogal nenne bi
 FUT. AUX (1sg) sit – CAUSE child the
 ‘I will make the child sit down’

2.3.2.3.2 Causative of Monotransitive Verbs

For most languages that allow the morphological causative of monotransitive verbs, the causative agent appears as the subject of the causative verb, while the causee appears as the indirect object. The direct object of the basic or underived verb is retained as the direct object of the causative verb. The example in (80) is from Turkish (Comrie 1985b).

- 80 a) Müdür mektub-u imzala-dı
 director letter-DO sign-PAST
 ‘The director signed the letter’
- b) Dişçi mektub-u müdür-e imzala-t-tı
 dentist letter-DO director-IO sign-CAUSE-PAST
 ‘The dentist made the director sign the letter’

As can be observed from (80), the causative agent which functions as the subject of the causative verb in (80b) is **Dişçi** ‘dentist’. The subject of the monotransitive construction **müdür** ‘director’ in (80a) now appears as the causee which functions as the indirect object of the causative verb in (80b). Note, however, that the direct object in (80a) **mektub** ‘letter’ also remains as the direct object of the causative verb.

There are also some languages which allow the morphological causative of monotransitive verbs, allowing the causee and the direct object of the basic verb to appear as direct objects. Sanskrit (81) and Swahili (82) are typical examples of such languages (Comrie 1985b).

- 81 a) Bhṛtyah katham karoti
 servant (NOM) mat (ACC) prepares
 ‘The servant prepares the mat’

- b) Rāmah bhrtyam katam kārayati
 Rama (NOM) servant (ACC) mat (ACC) prepare (CAUSE)
 ‘Rama makes the servant prepare the mat’.
- 82 a) Msichana a-li-u-funga mlango
 girl she-PAST-it-open door
 ‘The girl opened the door’
- b) Mwalimu a-li-m-funga-zisha msichana mlango
 teacher he-PAST-her open- CAUSE girl door
 ‘The teacher made the girl open the door’

For the derived causative double object constructions, Comrie (1985b) observes that not all the direct object features need to apply to both direct objects. In Swahili, for instance, a verb has only one position for a direct object prefix. In the causative of the monotransitive in Swahili, the prefix which occupies this position will refer to the causee and not to the direct object of the non-derived verb. Thus, in (82b), the object prefix **m-**relates to **msichana** ‘girl’, the causee, and there is no possibility in the grammar of Swahili to accommodate in (82b) the **u-**prefix which refers to **mlango** ‘door’ in (82a).

A third configurational possibility equally exists for the morphological causative of monotransitive verbs. This is where the causee instead of occurring as an indirect object or direct object, appears as an oblique object. This is the case in French (Comrie 1985b), as shown in (83b) below.

- 83 a) Pierre mangea les pommes
 ‘Pierre ate the apples’
- b) Paul fit manger les pommes à/par Pierre
 Paul made to eat the apples to/by Pierre

The causee can also occur as an oblique object in Sanskrit, as in (83c), especially as an alternative to its occurrence as an indirect object in the double direct object construction (cf. 81b). In Finnish, however, the occurrence of the causee as an oblique object is the only possibility for the causative of a transitive verb. The examples in (84) are from Finnish (Comrie 1985b).

- 83 c) Rāmah bhrtyeha katam kārayati
 Rama (NOM) servant (INSTR) mat (ACC) prepare (CAUSE)
 ‘Rama made the servant prepare the mat’.

- 84 a) Muurari-t rakens-i-vat talo-n
bricklayer-PL build-PAST-3PL house-DO - obl
'The bricklayers built the house'
- b) Mina rakennut-i-n talo-n muurare-i-
I build (CAUSE)-PAST-1sg house-DO bricklayer PL-OBL
'I had the bricklayers build the house'

2.3.2.3.3 Causative of Ditransitive Verbs

Comrie (1985b:340) reports that "no language has a class of typical four-place predicates". For this reason, Comrie notes that "there is no natural valency type for the causative of a ditransitive verb in the sense that the ditransitive type is a natural valency-type of the causative of a monotransitive verb". For the causative of the ditransitive verbs in many languages, the causee is expressed as an oblique object. This is the case in Turkish as in (85) where the causee **müdür** 'director' which is the subject of the non-causative ditransitive construction in (85a) has become the oblique object in the causative of the ditransitive construction in (85b).

- 85 a) Müdür Hasan-a mektub-u göster-di
director Hasan IO letter-DO show-PAST
'The director showed the letter to Hasan'
- b) Dişçi Hasan-a mektub-u müdür tarafından göster-t-ti
dentist Hasan-IO letter-DO director by show-CAUSE-PAST
'The dentist made the director show the letter to Hasan'

Note that the postposition **tarafından** 'by' assigns the oblique case to the causee **müdür** 'director'. Similarly, Turkish which allows the causee to occur as an indirect object in the causative of monotransitives (cf.80b) also allows double indirect objects in the causative of a ditransitive verb. Thus (86), where **müdür** 'director' has occurred as an indirect object, is an alternative causative of a ditransitive construction to (85b).

- 86) Dişçi müdür-e mektub-u Hasan-a göster-t-ti
dentist director-IO letter-DO Hasan IO show-CAUSE-PAST
'The dentist made the director show the letter to Hasan'

Our final example of the causative of ditransitive (from Comrie 1985b) comes from Swahili. Swahili, as we noted earlier (cf. 82b), permits a double direct object in the causative of monotransitive verb. As might be expected, it also

allows a double direct object in the causative of the ditransitive, as the example in (87) shows.

- 87) *María a-li-m-lip-isha John pesa kwa watoto*
 Maria she-PAST-him-pay-CAUSE-John money to children
 ‘Mary made John pay the money to the children’

As can be observed from the above examples, the number of NP positions within sentences can be reduced (e.g., short passivization, anticausativization, etc.) or increased by some language internal mechanisms. Causativization (like applicatives, possessor raising, etc) is a valency increasing mechanism resulting in an increase in the number of NP positions in a construction. Through the process of causativization, an intransitive construction can be a causative transitive one with an additional NP position. Similarly, a non-causative monotransitive sentence can become a causative ditransitive one while a non-causative ditransitive construction can become a “tritransitive” one.

As new NPs are introduced through this process of causativity, old ones change their position and might as well, change their grammatical function (GF), occurring either as a direct object or indirect object. The implication of this is that NPs to which the notions of subject, object or direct object, etc. (which are used to express grammatical relations or function) are assignable to, do not maintain rigidity of position within a derived causative construction unlike in its underived non-causative counterpart. Therefore, it is always the case that when an additional NP, normally the causer NP is added to a basic construction, in order to derive a causative one, the coding of the other NPs of the original construction is affected. In fact, there are changes in grammatical relations in causative constructions.

In his concluding remarks on causative and valency changes, Comrie points out that there is much variation across languages in the valency of causative verbs relative to non-causative verbs. He, however, adds that amidst the variation, there is still a certain general pattern that emerges. It is from this general pattern that languages tend to deviate from, in very restricted ways. Setting up a hierarchy of subject - direct object - indirect object - oblique object (OBL), Comrie (1985b:342) concludes that the general pattern of occurrence is that “the causee occupies the leftmost (topmost) position of the hierarchy that is not already filled by some argument of the causative verb”. The table adapted from Comrie which follows, illustrates this pattern of causativity and GF changes for intransitives, monotransitives and ditransitives.

Table 8: *Typical valency relations between basic and causative verbs* (cf. Comrie 1985b:342)

	Basic	Causative
Intransitive	SUBJ	SUBJ DO
Monotransitive	SUBJ DO	SUBJ DO IO OBL
Ditransitive	SUBJ DO IO	SUBJ DO IO OBL

From the table above, it can be observed that there can be variation in the treatment of the causee. This variation can be explained in terms of grammatical relations hierarchy (subject - direct object - indirect object - oblique object). The first thing to note is that it is the subject of the non-causative verb, the causee which undergoes a change in its syntactic status; the direct object of a basic transitive verb and the indirect object with ditransitives are not affected. The cause(r) NP, the actor of the causative verb or morpheme functions as the subject of the derived verb. When a basic verb is causativized and the cause(r) argument added, the causee argument takes over the highest open grammatical relation in the clause. If this basic verb is intransitive, then the causee becomes the direct object of the derived causative verb. If it is transitive, the causee becomes the indirect object (sometimes a direct or an oblique object), if it is ditransitive, then the causee receives the same treatment as the agent (actor) in passive constructions, that is, it becomes an oblique argument.

2.4 Causatives: A Theoretical Overview

As we noted earlier, causatives have been widely studied in different languages. Most of these studies, especially those carried out before the late 1980s (e.g. Lyons 1968, McCawley 1968, Anderson 1977, Comrie 1968, Levin

1983) are purely descriptive in nature, not based within any morphosyntactic theoretical framework.

The use of a theoretical framework as a springboard for the analysis and interpretation of linguistic data cannot be over-emphasized. In addition to providing the basic tools for the analysis and interpretation of data, the use of a theoretical framework for linguistic data ensures that both the analysis and the interpretation of such data are subjected to a number of principles of Universal Grammar. Ultimately, the new facts which emerge from the analysis and interpretation of the data are incorporated into the theory of Universal Grammar.

As Lyons (1968:380) states “new theories in linguistics develop based on the assumption that all the facts observable in languages are in principle formalizable within a consistent general (theoretical) framework. In recent times, a good number of works are being published which are directed towards a theoretical formalization of observable facts in languages.

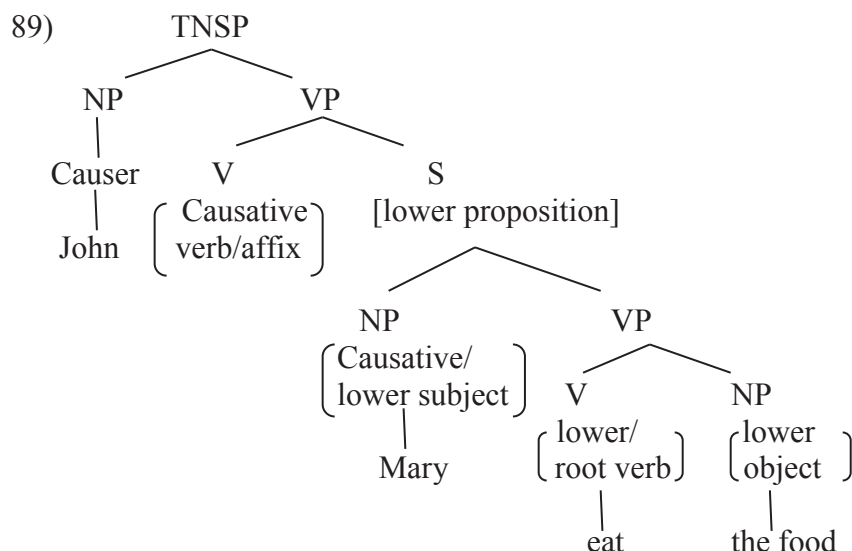
However, we shall not attempt to discuss all the technical theoretical proposals on causatives or try to discuss all their merits and viability. Rather, we have chosen to highlight the theoretical proposals on causatives as discussed by some notable scholars. These scholars include Comrie (1976a), Marantz (1984), Baker (1988) and Li (1990). Comrie, Marantz, Baker and Li each provides an interesting theoretical account for causatives and yet, each of them differs from the other in some ways in their treatment and analysis. The approach of causatives outlined by both Marantz and Baker in many respects continues the tradition set out by Rouveret and Vergnaud (1980) who treat causatives as syntactically biclausal, and derive their monoclausal properties from a special restructuring of non-adjacent constituents. The following sections provide an overview of the theoretical proposals of Comrie (1976a), Marantz (1984), Baker (1988) and Li (1990) on causatives.

2.4.1 Comrie (1976a)

Comrie (1976a) does not discuss the analysis of syntactic and lexical causatives. For the derived morphological causative constructions, Comrie proposes what he calls a relational hierarchy (88):

88) subject – direct object – indirect object – other oblique position

Comrie proposes that a derived morphological causative construction has an underlying structure similar to the one in (89).



Comrie claims that the subject of the embedded sentence or the causee (NP) is displaced out of its subject in the relational hierarchy. When this happens, Comrie notes that the causee moves down the hierarchy occupying the first empty slot. Comrie cites the examples in (90) below, observing that in the causative of an intransitive verb like the Turkish **öl-** ‘die’ in (90a), the causee will become the direct object, since no argument of the root verb occupies this slot. In the causative of a transitive verb, like the Turkish **imzala** ‘sign’ in (90b), on the other hand, Comrie notes that the causee must travel to the indirect object position to locate an empty slot.

- 90 a) Ali Hasan-i öl-dür-dü
 Ali Hassan-ACC die-cause-past
 ‘Ali caused Hasan to die’
- b) Disci mektub-u müdür-e imzala-t-ti
 dentist letter-ACC director DAT. Sign-cause-past
 ‘The dentist made the director sign the letter’

Based on his assumptions about the formation of morphologically derived causative constructions, and following from his relational hierarchy (89), Comrie formulates the “paradigm case” syntax in (91) for derived causatives cross-linguistically. He, however, adds that the paradigm case syntax generally holds when the derived causative verb is active in voice.

- 91 a) *Causative of intransitive verb:*
 causer $\longrightarrow$ subject of derived causative verb
 causee $\longrightarrow$ direct object of derived causative verb.

- b) *Causative of transitive verb:*
- | | | |
|--------------|---|---------------------------------------|
| causer | → | subject of derived causative verb |
| lower object | → | direct object of derived causative |
| causee | → | indirect object of derived causative. |

Despite the examples of languages that seem to exemplify the paradigm case of causative constructions, Comrie (1976a) also admits that many languages do not conform to the pattern of derived causative constructions in (91).

2.4.2 Marantz (1984)

Marantz (1984) provides an extensive analysis of causative constructions. He first notes that Comrie's (1976a) generalization that the causee in the causative of a transitive verb becomes the indirect object does not get a wide range of cross-linguistic support. Whereas it is possible, in Marantz's opinion, for many languages to express the causee (of a causative based on a transitive verb) in the same case marking (and/or with the same adposition) used to express the goal argument of verbs like "give", a lot of considerations may lead one to conclude that this fact provides little or no evidence to the Comrie's proposal that the causee becomes an indirect object in the paradigm case.

Marantz goes ahead, noting that some languages do not express the causee the way goal arguments are normally expressed (e.g. in Malayalam; spoken in India) and that there is no statistical study demonstrating that the causee (with causatives based on transitive verbs) is generally more likely to be expressed as instrumental arguments are. Marantz adds that in languages that allow a causee to be expressed the way goal arguments are, such a causee is often not obligatory. He therefore argues that cases of what Comrie (1976a) calls "doubling on indirect object" (that is, cases where causes and goals arguments are in the same case marking resulting in two indirect objects in a sentence) do not provide enough evidence for a paradigm case in which the causee in causatives based on transitives becomes an indirect object.

According to Marantz, if the causee were truly occupying the indirect object slot, one would not expect the causee to become an indirect object in sentences already containing one, just as the causee does not (normally) become a direct object in sentences containing direct objects. For Marantz, a careful studying of Comrie's cross-linguistic survey of causative constructions, makes it clear that there is no evidence for a paradigm case in which the causee in causatives based on transitive verb becomes an indirect object. Marantz, therefore, notes that the evidence from Comrie's cross-linguistic survey suggests that many languages allow the causee of a transitive verb to be expressed as the goal of a verb like "give", whereas other languages allow this causee to be expressed as instruments are, while still others, provide other different options.

In the following sections, we shall look closely at how Marantz (1984) analyzes the different kinds of causative constructions.

2.4.2.1 Marantz's Kinds of Causative Constructions

Marantz (1984), based on the survey of languages states that there are different types of causative constructions cross-linguistically. He adds that each type of causative construction is biclausal in its derivation. He lists the different types of causative construction. These include the English-type causative in which the causative morpheme **make** remains a separate constituent at every level of syntactic analysis, the derived causative construction in which that causative morpheme merges with the lower verb at S-structure and the (Comrie's paradigm case) causative construction in which merger between the causative verb and the lower verb takes place at D-structure. Marantz also adds another type of causative construction; the one which allows the possibility of splitting. That is, in this type of causative construction, the causative morpheme merges with the lower verb at D-structure but splits from it again at S-structure. We shall briefly discuss these types of causative construction as presented by Marantz.

For the analysis of the morphologically derived causative constructions, Marantz proposes what he refers to as morphological merger. The morphological merger joins the causative morpheme which is in a matrix clause and the verb stem in the complement clause to the causative verb. Marantz (1984:227) bases his proposal of merger on his morphological merger principle which states that:

When x and y merge, the argument structure of the derived word $x + y$ is the argument structure of x applied to the argument structure of y (or to y itself), or the argument structure of y applied to the argument structure x , or to x itself).

From the above merger principle, it follows that the argument structure of a derived causative verb is the argument structure of the causative morpheme applied to the argument structure of the root verb. Thus, in Marantz's view the derived causative verb incorporates an argument to form the predicate produced by the causative morpheme and the predicate formed by the argument structure of the root verb.

According to Marantz, the principle of morphological merger which he outlines, explains not only the main aspects of Comrie's (1976a) paradigm case causative construction, but also the existence of a major, unrecognized class of exceptions to the paradigm case, as well as some other phenomena which Comrie does not discuss. Marantz assumes that the causative morphology in derived causative constructions has basically the same lexical entry as the

English causative **make**. He gives the lexical entry of a causative morpheme as (92).

- 92) ‘Cause’ (caused), [+ logical subject], [+ transitive]

Marantz further claims that causative affixes or verbs take a propositional argument but exceptionally (case) govern into such sentential complement at S-structure. By governing into their sentential complements, these causative affixes or verbs also govern the VP heads of these sentential complements. Thus, by Marantz’s Government Transitivity Principle (TGP) (93), the causative affix or verb must head-govern the subject of the embedded VP.

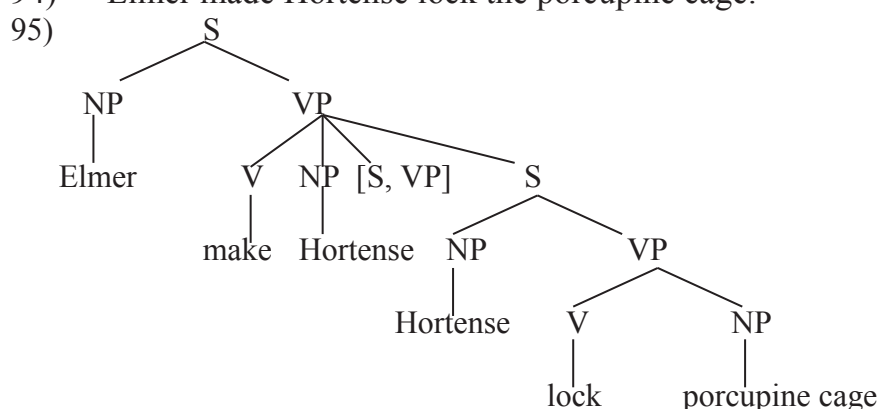
- 93) Government is transitive such that if x governs y and y governs z, then x head-governs z.

In the following sections, we shall discuss in some detail, the various kinds of causative constructions distinguished by Marantz (1984).

2.4.2.1.1 Causative Constructions without Merger

According to Marantz, the English causative construction with **make** is a typical example of a causative construction without merger. No morphological merger takes place between the causative morpheme **make** and the lower verb. Based on the assumption that **make** is a non-canonical raising verb which exceptionally governs into its sentential complements in English, Marantz states that the S-structure of a sentence such as (94) without merger is (95).

- 94) Elmer made Hortense lock the porcupine cage.



Since the causative morpheme **make** governs its s-structure sentential complement Marantz assumes that **make** in (95) governs the VP that heads this complement and also head-governs the subject of this VP by his Government Transitivity Principle. However, the lower subject in (95) behaves in many

respects like the direct object of **make**. For example, the lower subject appears in the object case if it is a pronoun (as in: Elmer made him lock the porcupine cage). This means that **make** is an Exceptional case marking (ECM) verb.

Certain aspects of the syntax of English causative constructions, according to Marantz, are easily inferred from (95). An obvious one is, of course, the fact that the English causative construction is syntactically biclausal at all levels of derivation, consisting of the matrix clause headed by the causative **make** and the complement clause to the causative **make**. Again, Marantz notes that the lower subject can be raised to occur as the subject of the matrix clause by adding the passive affix to the causative make as in (96).

96) Hortense was made to lock the porcupine cage.

Similarly, the passive morpheme can be attached to the embedded verb, thus making the lower object function as the subject of the complement clause and as well the object of the matrix causative verb (cf. 97).

97) Elmer made the porcupine cage be locked by Hortense.

2.4.2.1.2 Derived Morphological Causative Constructions

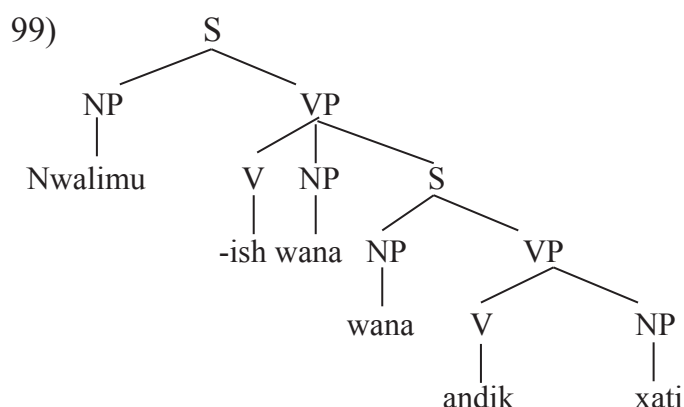
Marantz (1984) distinguishes two types of derived morphological causative constructions, which are achieved through the process of morphological merger. One of these two types is merged at S-structure, while the other is merged at D-structure.

a) Morphological Merger at S-structure

Marantz (1984) observes that Chinwini (a Bantu language) is a typical example of a language in which the causative morpheme and the lower verb merge at S-structure. The example in (98) is a morphological causative sentence from Chinwini.

98) Nwalimu Ø-wa-andik-ish-iz-e.wana xati
 teacher SP OP-write-cause-T/A children letter
 'The teacher made the children write a letter'

In (98), the Chimwini causative affix is **-ish** 'cause', and according to Marantz, it has basically the same lexical entry as the English **make**. The root verb in (98) is **andik** 'write'. The initial structure of the Chimwini sentence in (98) before the morphological merger at S-structure, according to Marantz, is similar to the English analytical causative construction. This is as shown in (99).

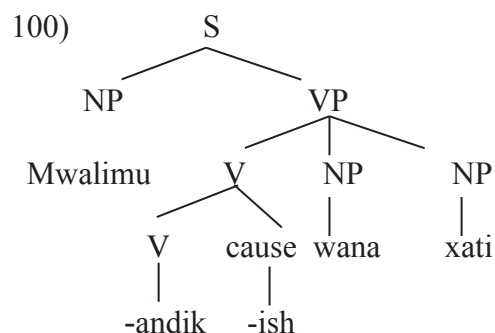


Marantz assumes that (98) is an ECM construction which he represents as a kind of notational raising-to-object, in which the lower subject is represented simultaneously as the object of the causative verb while remaining represented as the subject of the embedded verb.

The causative affix in (99), as observed by Marantz, takes two NP arguments; the causer subject argument **nwalimu** ‘teacher’ and the causee object argument **wana** ‘children’, and a sentential complement whose subject, in fact, corresponds to the causee object argument of the causative affix. The root verb also takes a syntactic argument, which is its direct object. The morphological merging of the causative affix with the root verb will express the syntactic argument relation between the causative affix and the sentential complement headed by the verb root. Marantz argues further that the syntactic argument structure of an item reflects whatever arguments it takes, and as such, the arguments of the subparts of a derived morphological causative word become arguments of the derived word. Thus, all the pre-merger argument relation of each subpart will correspond to post-merger argument relations of the derived word. At s-structure, as Marantz observes, merger unites the lower VP headed by the verb root with the causative affix to form the derived morphological causative verb. The lower subject argument of the sentential complement becomes an internal argument of the derived verb. Again, as Marantz notes, feature percolation within the derived verb specifies that the syntactic role assigning property of the causative affix take precedence over the syntactic role assigning property of the root verb (which becomes a feature of the derived verb). Accordingly, the causee NP is assigned the syntactic role of direct object by the derived causative verb.

Marantz, however, observes that Chinwini verbs assign only one internal syntactic role each, and for this reason, the derived verb having internalized and assigned the causee the syntactic role of direct object, cannot also assign a syntactic role to the pre-merger object of the root verb. The object of the root

verb is now realized as an indirect syntactic argument of the derived verb. Marantz gives the post-merger S-structure of (99) as (100).

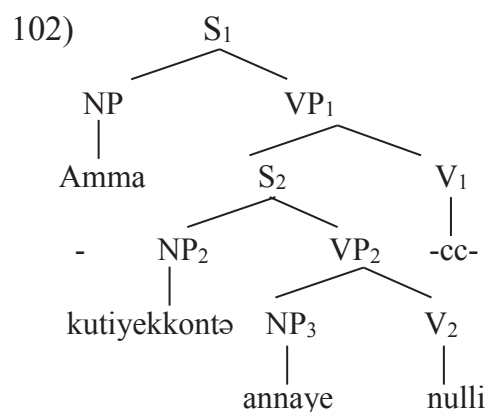


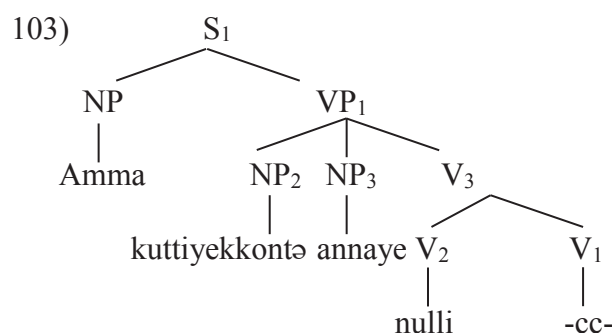
b) Morphological Merger at D-structure

Marantz (1984) admits a second type of morphological causative construction, which though is biclausal, behaves as monoclausal. The merger of both the causative morpheme and the root verb takes place at the D-structure. Marantz provides an example of this type of morphological causative construction from Malayalam (a Dravidian language of Southern India), as in (101).

- 101) Amma Kuttiyekkontə annaye nulliccu
 Mother-NOM child-INST elephant-ACC pinch-cause-past
 ‘Mother made the child pinch the elephant’

The causative affix in (101) is **-cc-**. The causee **kutti** ‘child’ is marked with the instrumental postposition **-kkontə** which indicates that it appears in the oblique case, while the lower object **annaye** ‘elephant’ remains in the accusative case. Marantz gives the pre-merger D-structure of (101) as (102), while (103) is the post-merger structure.





Marantz's crucial assumptions in Malayalam is that merger takes place at D-structure; hence, it shows little or no remnants of its biclausal past, thus, making the post-merger structure to appear syntactically as though it were a single clause. The merger of V₁ and V₂ expresses the relations between V₁ and the proposition headed by V₂, though these relations do not seem to appear in the post-merger structure. The derived argument structure of the causative verb, V₃, is the argument structure of V₁ applied to the proposition formed by the argument structure of V₂. The merger internalizes the causee into the argument structure of V₃ thereby making it part of the argument of V₃.

According to Marantz, the essential differences between the two types of derived morphological causatives (the one merged at s-structure and the other merged at D-structure) do not lie in their respective origin; both seem to have a biclausal origin. Their difference lies in the fact that the causative predicate of the one merged at S-structure, before the merger process takes a direct object. This direct object is also the subject of the embedded complement clause given the ECM predicate status of the matrix causative verb. The lower verb also takes a direct object. After the merger process, instead of having two direct objects, the syntactic properties of the causative morpheme take precedence over those of the lower verb. As a result, the object of the derived morphological causative verb corresponds to the object of the causative morpheme at pre-merger stage, while the object of the embedded verb remains. This is not what happens with the morphological causative construction merged at the D-structure. The causative morpheme does not take any object at the premerger stage. As a result, the object of the derived morphological verb becomes the premerger object of the embedded verb.

Hendrick (1995:334) observes that the intrinsic difference between these two kinds of morphological causative constructions distinguished by Marantz is also revealed by their interaction with binding theory. On the assumption that binding applies at s-structure, there is an explanation for the reflexives contrast observed in the two kinds of causative constructions. Normally, a reflexive will be coreferential with the nearest appropriate antecedent in subject position. In the case of morphological causatives merged at S-structure,

the subject of the embedded clause, the causee, serves as a specified subject blocking binding of the object of the embedded clause from outside that clause. Thus, for such morphological causative constructions, the nearest antecedent for a reflexive NP (object of the embedded verb) is the lower subject (the subject of the embedded clause). The Chinwini example in (104) from Hendrick (1995:335) further illustrates this binding relation.

- 104 a) *Mi ni-m-big-ish-ize Ali ru:hu-y-a
 I ISS-OP-hit-cause-ASP Ali myself
 ‘*I made Ali hit myself’
- b) Mi m-phik-ish-ize ru:hu-y-a chakuja
 I ISS-cook-cause-ASP myself food
 ‘I made myself eat food’

For the morphological causatives that are merged at D-structure such as the Malayalam one, the only possible antecedent for a reflexive object NP of the embedded verb is the matrix subject. The binding relations observed in this kind of morphological causative, according to Hendrick, are so because the causee (the embedded subject) loses its subject properties (having become an oblique NP), and therefore, does not block binding of the object of the embedded clause. To this extent, in the Malayalam data in (105), the reflexive **swa** needs to have a subject as its antecedent. However, the causee NP in (105), **kutiye-kkontə** ‘child’ is unable to serve as an antecedent, which means that it is not a subject.

- 105) Amma kuttiekkontə annaye swantam wittily wecc nulli-cc-u
 ‘The mother made the child pinch the elephant at the mother’s/*child’s house’

Another difference between the two kinds of morphological causatives, contrasted by Marantz, has to do, as highlighted by Hendrick, with the pattern of passivization within these two kinds of causatives. As observed by Hendrick, the behaviour of reflexives pattern closely with that of passives. Morphological causatives that are merged at S-structure allow the causee NP to be promoted to be the subject of the matrix clause, while the object of the embedded verb will be unable to passivize to become the subject of the matrix clause without violating principle A of the binding theory. On the other hand, morphological causatives that are merged at D-structure potentially allow the object of the embedded clause to passivize because the embedded clause no longer functions as a governing category after losing its subject.

2.4.2.1.3 Merger and Splitting Type of Causative Construction

Marantz (1984) notes that merger is essentially non-directional. This means that in the chain of structures related by merger at any level of syntactic analysis, two constituents in one structure, may correspond to one constituent at the next level. Again, one constituent at one level may split into two at another level. The first option involves only the merger process, while the second option, according to Marantz (1984:285), is referred to as “merger and splitting”. Marantz further remarks that merger and splitting results “if a single constituent in one list of constituents and relations at S-structure corresponds to two constituents in the next list at S-structure” That is a single S-structure word may correspond to two independent surface structure morphemes.

Marantz notes that it seems that the French causative constructions (and Romance causatives, in general) exploit the merger and splitting option. He recalls that it has often been remarked in the literature that the syntax of French causatives, from a grammatical relational point of view, closely resembles the syntax of causatives in languages (such as Malayalam) where a verb root and a causative morpheme are merged at D-structure, and yet the surface structure of French causatives looks biclausal, leaving the causative and lower verb as separate words. Marantz claims that this behaviour of French causatives is just what one would expect if the causative and root verbs merge at D-structure, but split again at S-structure. This ensures that two D-structure constituents are mapped onto one S-structure constituent and this one S-structure constituent again is mapped onto two surface structure constituents.

The expression of the causee in French causative under **faire** ‘make’, according to Marantz, depends on the transitivity of the embedded lower verb. Generally, the causee with an intransitive lower verb shows up, as a canonical post-verbal direct object (cf. 106a). The causee with a transitive lower verb generally shows up in a prepositional phrase with **à**, the preposition used in French to mark indirect syntactic arguments of verbs (cf. 106b).

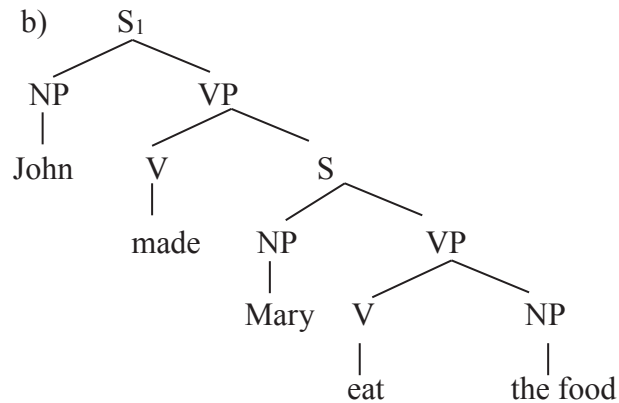
- 106 a) Jean a fait partir Marie
John past make leave Mary
‘John made Mary leave’
- 106 b) Jean a fait boire du vin à Marie
John past make drink of the wine to Mary
‘John made Mary drink some wine’

Marantz, therefore, concludes that the merger and splitting analysis makes it easier to account for the similarities between the French causatives and other causative constructions, which involve merger at D-structure and even others that involve distinct surface verbs.

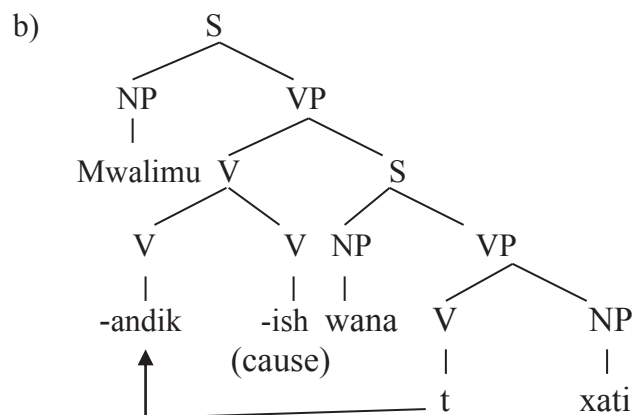
2.4.3 Baker (1988)

Baker provides a biclausal analysis to all causative constructions. This means that for Baker, both the syntactic and non-syntactic causative constructions have a biclausal origin as (107), (108) and (109) show. Example (108) is from Chimwini.

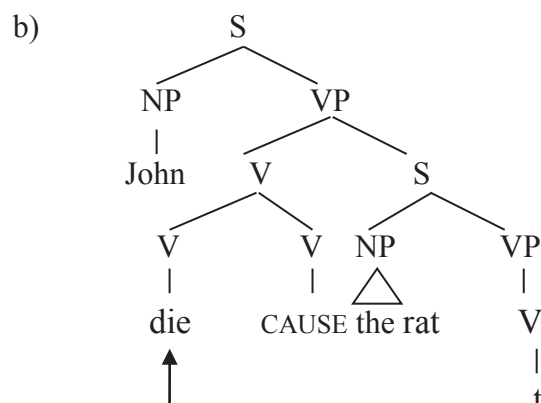
- 107 a) John made Mary eat the food



- 108 a) Mwalimu wa-andik-ize wana xati
 teacher OP-write-cause children letter
 'The teacher made the children write a letter'



109 a) John killed the rat



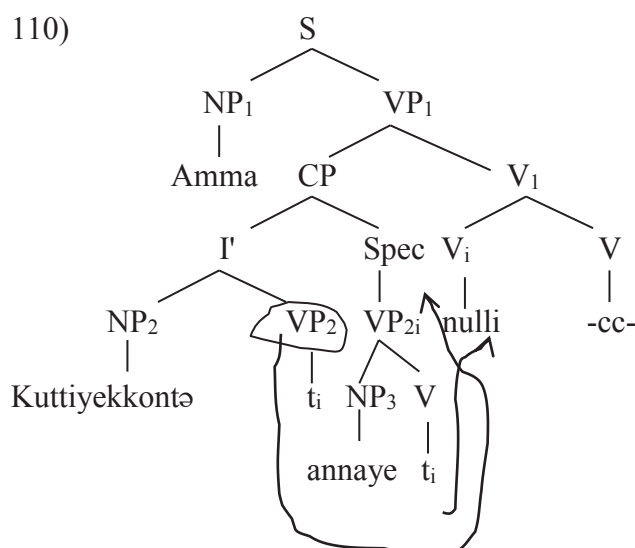
Example (107) is a syntactic causative construction, and according to Baker, it remains as such through out the course of its derivation. The example in (108) is a morphological causative construction. It is also biclausal historically, but ends up as a monoclausal one with the “incorporation” of the lower verb to the causative morpheme. Similarly, (109) presents a lexical causative construction which has been shown to have a biclausal history prior to the incorporation of its lower verb to an abstract causative main clause verb.

2.4.3.1 Baker’s Verb Incorporation Proposal

Whereas, for the morphological causatives, Marantz refers to the union of the causative morpheme (of the main clause) and the lower verb root as a morphological merger, Baker (1988) views this union as verb incorporation. According to Baker, a language relates a verb of valency n to a causative of valency $n+1$ by means of some regular morphological process. He, therefore, assumes an analysis in which the causative predicate incorporates the embedded verb, V , to produce a complex predicate, ‘cause to V ’.

Baker essentially adopts the range of morphological causative constructions discussed by Marantz (1984). While Marantz draws a distinction between the two kinds of morphological causative constructions based on the level (D- or S-structure) at which merger takes place, Baker reconstructs this distinction based on the categorial status of the constituent that gets incorporated. Baker reiterates Marantz’s claim that in morphological causatives, the CAUSE predicate surfaces as an affixal morpheme which incorporates the embedded V . He, however, notes that there are two main ways of achieving this incorporation process, which apparently depends on whether we are dealing with a monoclausal or biclausal type of morphological causative.

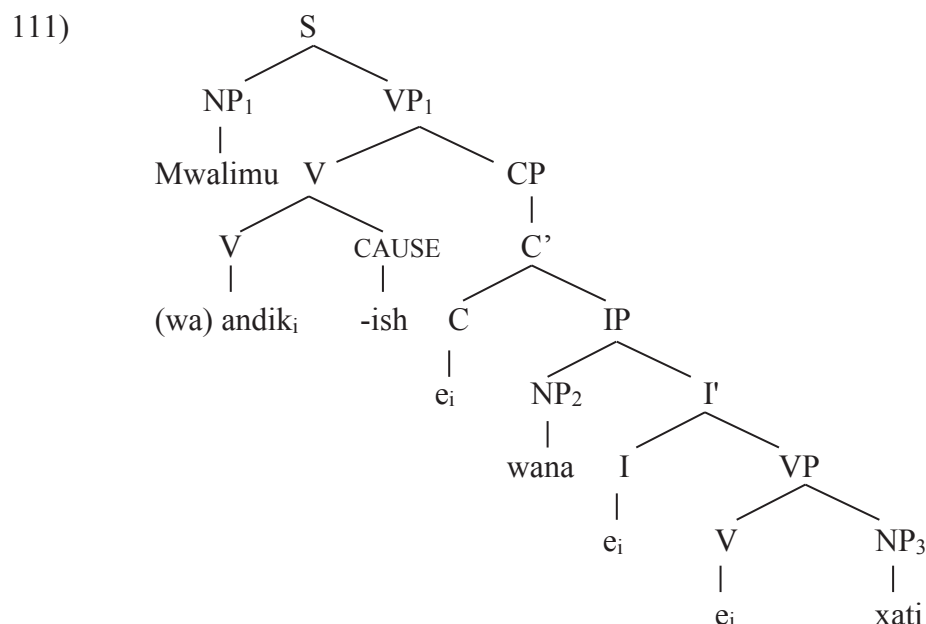
As has been observed from Marantz's analysis of monoclausal morphological causative (e.g., in Malayalam), the embedded object NP of the embedded V becomes the true direct object of the derived causative verb, while the causee, the embedded subject NP is treated as an adjunct or an obliquely marked secondary object. In Baker's analysis, this result is achieved by raising the entire VP which contains the embedded object to the position of [Spec, CP]. It is from this position, according to Baker, that the verbal head of the embedded VP incorporates into the CAUSE predicate. Thus, in Baker's view, this type of causative construction involves VP movement plus head movement. This analysis is structurally shown in (110), using the Malayalam data in (101).



Baker notes that in (110), the incorporated VP is able to govern its trace in the embedded sentence in accordance with the government binding theory assumptions. Also, the derived morphological causative verb governs into the VP inside the [Spec, CP] position. To this extent, the incorporation of the embedded V to the causative affixal head does not violate the Head Movement Constraint (HMC) principle which demands that a lexical item (e.g. verb) incorporates words which it governs. (Travis 1984).

For the second type of morphological causative construction, we noted that Marantz argues that it is merged at the S-structure. We also observed that it is at the S-structure that the embedded NP subject becomes the true object NP of the derived causative verb since the derived causative verb functions as an ECM predicate. In Baker's analysis of this type of morphological causative formation, he assumes that the embedded V (not the entire VP headed by this V) raises, and incorporates into the matrix causative verbal morpheme. The incorporation of the embedded V leaves the embedded object NP in the

embedded VP, while the embedded subject becomes case-marked as the new direct object NP of the derived causative verb. Baker adds that the embedded V before being incorporated to the causative verbal morpheme, moves through the positions I and C in the embedded clause. The V moving successively through I and C, according to Baker, is the only way in which such a morphological causative verb can be derived. The traces left behind by the movement form a chain, each member of which is governed. This incorporation also obeys the HMC. The derivation is shown structurally in (111) using Chimwini data in (98).



From the representation in (110) Hendrick (1995) observes, that it is obvious that structures that Marantz analyzes as causatives involving D-structure merger, Baker treats not as raising a V but raising VP to specifier of CP. Being in [Spec, CP], the object of the embedded VP is free from the effects of the specified subject, and thus can reflexivize or passivize. For Baker, the French causatives also involve moving VP to Spec CP and then moving the embedded V into the causative **faire** ‘make’ at LF rather than at s-structure.

Hendrick (1995) adds that whether a language makes use of a morphological causative of the type in (110) or (111) is ultimately related to the patterns of case marking in that language. Language, with structures such as (111), according to Hendrick, must have verbs with the ability to assign two structural case, otherwise the embedded subject will violate the case filter. Thus, what in Marantz’s view, are two kinds of morphological causative constructions realized at different grammatical levels, are treated as morphological causatives with two distinct S-structure in Baker’s analysis.

2.4.3.2 Baker's Verb Incorporation and some Syntactic Principles

As part of the refinement for his verb incorporation proposal, Baker further argues that his analysis of these two kinds of morphological causatives conform to certain syntactic principles. He notes that incorporation respects the Head Movement Constraint (HMC). The HMC which was originally formulated by Travis (1984) states that a lexical item such as a verb may only incorporate those words which it properly governs. Proper government refers to the relation between a theta role assigner such as V or P and the position to which it assigns a theta role (e.g. its NP complement). In the case of the morphological causative constructions, Baker argues that the HMC is obeyed in both type of morphological causatives. The raised VP (cf. 110) in the monoclausal type of morphological causative is able to govern its trace in the embedded sentence. Likewise, the derived causative verb governs into the VP inside the [Spec, CP], thereby obeying the HMC. The V movement through the I and C positions before its incorporation in the biclausal morphological causatives (cf. 111) leaves traces. These traces form a chain and each chain is governed. This ensures that the HMC is obeyed.

As noted by Spencer (1991:280), the HMC rules out a great many type of incorporation which, however, are not attested. The most important types of incorporation prohibited by HMC are incorporation of subjects by verb and incorporation from adverbials, that is non-theta marked adjuncts. Spencer adds that subjects cannot be incorporated because a verb only governs a position which it c-commands. It is the subject which asymmetrically c-commands the verb. Similarly it is not possible to incorporate constituents from adverbial positions since such positions are not theta-marked and non-theta-marked positions constitute a barrier to government (Chomsky 1986a). It is for this reason that adverbial phrasal nodes (AdvP, PP, NP, etc) will be a barrier and will prevent the verb complex from governing the trace of any incorporated lexical item.

Baker also observes that both the Government Transparency Corollary (GTC) and the Empty Category Principle (ECP) are also obeyed in the incorporation theory. According to Baker, whenever a causative verb incorporates another verb, the derived causative verb complex governs anything which was governed by the incorporated verb before incorporation. This is the case in (110) or (111) where the derived causative verb **nullicc** 'cause to pinch' or **andikish** 'cause to write' still governs the NP₃ complement (**annaye** 'elephant' or **xati** 'letter' respectively) which was governed by **nulli** – or **andik**. This is in fulfillment of the GTC. By the ECP all traces in the incorporation structures (110 and 111) are properly governed. Traces that are not properly governed constitute a violation of the ECP.

Baker's theory of incorporation also relates morphological complex constructions to underlying representations in which affixes figure as full-

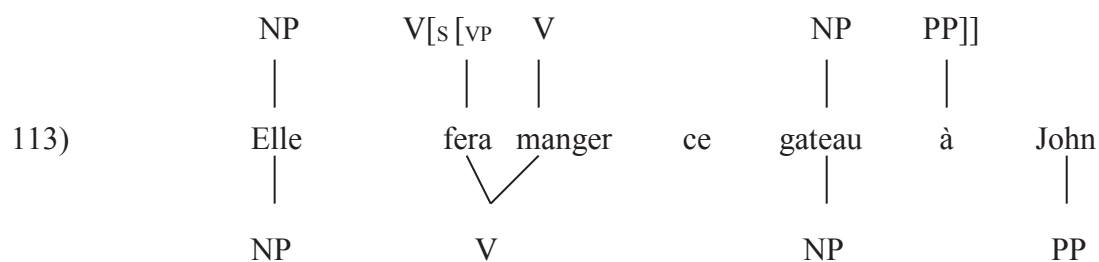
fledged lexical heads. The key assumption here, according to Baker, is that constructions or part of constructions which show the same theta role (predicate argument) relations should have the same underlying representation. Illustrating his idea of uniformity in predicate argument structure, Baker uses a hypothetical language in which the verb **drop** has the structure of a regularly formed causative (as in a notational sentence such as: **Harriet CAUSE fall the vase**). He argues that the underlying representation of such a sentence should capture the fact that **the vase** bears the same semantic role for the complex verb **CAUSE-fall** which it will also bear with the verb **fall**. He points out that such an underlying structure must represent the fact that **Harriet** in the notational sentence caused a situation to come about, described by the proposition: **The vase fell**. Baker, for the purposes of clarification, follows Marantz's (1984) type of lexical decomposition analysis, and proposes a principle which he calls the Uniformity of Theta Assignment Hypothesis (UTAH). According to UTAH, whenever a theta role assigner say the verb **die** assigns a particular theta role such as theme, but in a variety of different surface structures as in the intransitive and causative forms (e.g., Mary died vs John killed Mary), then, the D-structure representation corresponding to the surface structures of the intransitive and causative use of **die**, has to include a representation in which **die** assigns a theme role to **Mary** while **kill** the causative of **die** assigns the same theme role to Mary. In effect, Baker's UTAH helps in determining the D-structure of a sentence by inspecting its meaning.

2.4.4 Li (1990)

The approach to the study of causatives as presented by Comrie (1976a), Marantz (1984), and Baker (1988) has been criticized as being overly abstract. Marantz's and Baker's analyses have been criticized because of their implications for the Romance causatives (cf. 112) which look as though they do not involve verb-raising, but show many properties of being monoclausal, as observed by Hendrick (1995).

- 112) Elle fera manger ce gateau a Jean
 She will-make to-eat that cake to John
 'She will have John eat that cake'

We recall that Marantz (1984) claims that the Romance causatives involve two clauses that are merged at D-structure and then split into two clauses again at S-structure. Baker, on the other hand, analyzes the Romance causatives as moving VP to Spec CP, and then incorporating the embedded V into the causative **faire** 'make' at LF. Zubizarreta (1985) and others (e.g. Sadok (1990) suggest an analysis in which a string of morpheme is given two simultaneous structures, thus, giving the French causative in (112) the structure in (113).



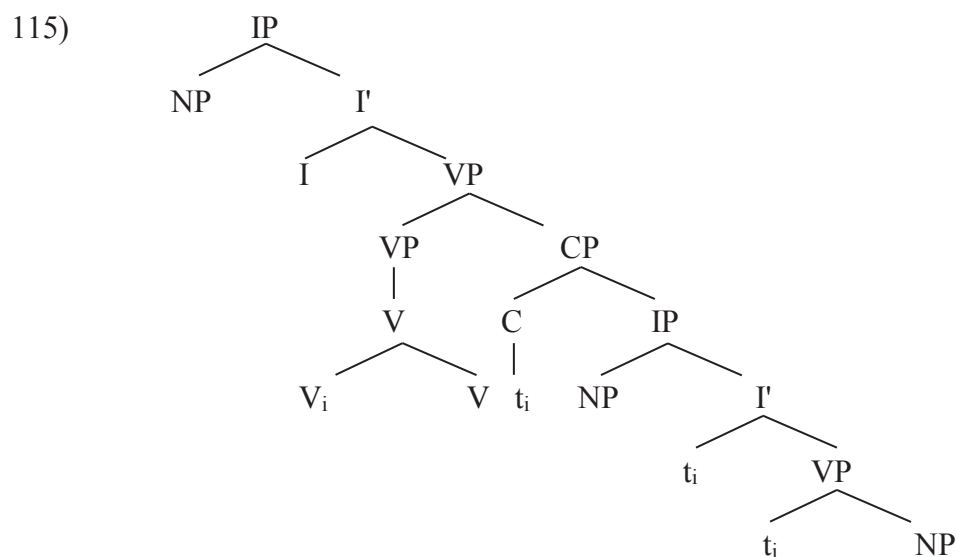
The top structure shows the fact that the two verbs behave inflectionally as different words, while the bottom structure shows that **faire** (fera) ‘make’ is like a causative morpheme, and therefore has the ability to internalize a verb’s argument.

Li (1990) proposes a treatment and analysis of causatives that shares with Baker’s analysis a syntactic derivation of causatives by head-movement (incorporation). Li’s analysis of causatives, however, differs from those of Marantz and Baker in that it does not assume a biclausal structure for causatives. Rather, following Burzio (1986), Li notes that causative verbs embed VPs, and are constrained by an extended version of the binding theory which Li develops. In the following sections we shall provide an outline of Li’s analysis of causative constructions.

2.4.4.1 An Outline of Li’s (1990) Analysis

Li (1990:399) begins his argument and analysis by citing a typical example of verb incorporation (VI) construction from Swahili (114) together with its tree structure representation (115) based on Baker’s VI proposal.

- 114) Musa a-li-m-pik-ish-a mke wake chakula
 Musa he-past-her-cook-cause-ind. wife his food
 ‘Musa made his wife cook some food’



Li recalls that the idea that V-compounds are formed by moving a lower V to a higher one dates back to the era of the Generative Semanticists in the 1960s. He notes that the attraction of Baker's analysis is based on the fact that some of the typical properties and effects of VI can be explained with some mechanisms that are independently required in GB theory.

Li goes further by citing the example in (116), adding that the sentence will have the same D-structure form as (114), and therefore, one would expect that the embedded V in (116) will move up to the matrix verb through VI.

- 116) Na-ju-a kama Hamisia-na-ogop-a giza
 I know-ind. that Hamisi he-pres. fear-ind. darkness
 'I know that Hamisi is afraid of the dark'

Li, however, observes that VI is not possible in (116), and this impossibility of VI in (116) shows that not every V that takes a clausal complement is capable of triggering VI, even though by Baker's analysis, the verbs in (114) and (116) share similar structural analysis, as in (115). Li argues strongly that an analysis of VI, as given in (115) by Baker, seems to allow more than what actually exists. Li identifies two basic problems inherent in the treatment of VI, as shown in (115) and points out that these two problems can be avoided in the GB framework without altering drastically, the main assumptions in Baker's analysis.

One of these two problems relates to the structural configuration of the complement construction to the matrix causative verb. Contrary to Baker's analysis, Li asserts that in a construction that triggers VI, the complement of the matrix causative verb is not a CP, but a bare VP. In line with this position, a structure like (115) which does involve an embedded CP is ruled out by a modified version of the binding theory which Li develops. Also, Baker's analysis of VI, as indicated by (115), reveals that the embedded V adjoins to the intervening Infl(I) before getting incorporated to the matrix verb. Li remarks that there is no evidence of the embedded I in the resulting VI compound. He acknowledges, that it has been argued in the literature that it is possible to think that having an overt embedded I in V compounds should be ruled out on epistemological reasons. This is because a verb cannot bear multiple Is (both embedded and matrix one), since the same event denoted by the head of a predicate cannot happen at different times. Li, however, does not support the idea that it is impossible to have more than one I in a compound V. He maintains that more than one verb is involved in a V compound and there is no reason why each verbal morpheme cannot have its own I. Li therefore concludes, though without providing illustrative data that it should be very simple to make clear which I goes with which verb in a V compound. According to him, the ordering of the verbal morphemes in a V compound is sufficient to recover such information.

2.4.4.2 The Range of VI Triggering Verbs

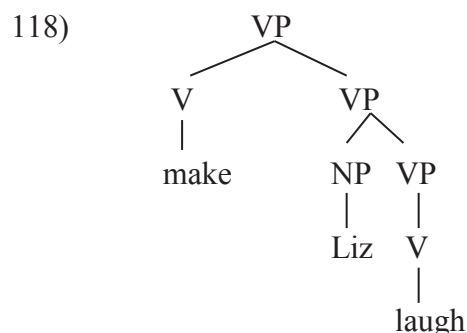
Li (1990) acknowledges that though causativization as a result of VI is extremely common cross-linguistically, there is no clear evidence that any language allows VI with a matrix verb meaning **know** or **say**. The contrast between (114) and (116) makes this point clear. Li notes that the asymmetry between the VI-triggering verbs and non-VI-triggering verb is actually due to the affixal nature of causative morphemes. Causative morphemes are like affixes; they cannot stand alone, thereby causing an embedded verb to move up to attach to them. Since verbs like **say** and **know** are not affixal in nature, it will not be possible for an embedded verb to attach to them (or vice versa). Thus, VI will not take place with such verbs.

2.4.4.3 CP or VP Complement to Causative Verb

Li (1990) remarks that there are various views concerning the status of the constituent which complements the causative verb in causative constructions (Vergnaud 1971; Burzio 1981; Baker 1988, etc.). He therefore, states that “what is interesting about the causative verb (perhaps cross-linguistically) is that its complement, though containing as verbal projection rarely takes the form of a full clause” Li, however, notes that empirically, it is hard to notice that a causative verb subcategorizes for a VP, especially when causativization arises through VI. In English (syntactic causative), Li observes that the causative verb stands alone and thus makes the difference between the causative verb and a “normal” clause-taking verb to become clearer. He goes ahead, citing the English examples in (117) observing that the causative **make** in English does not take a finite clause (117c) or even an infinitive with *to* (117b), but takes an embedded verb which must be in its bare form (117a).

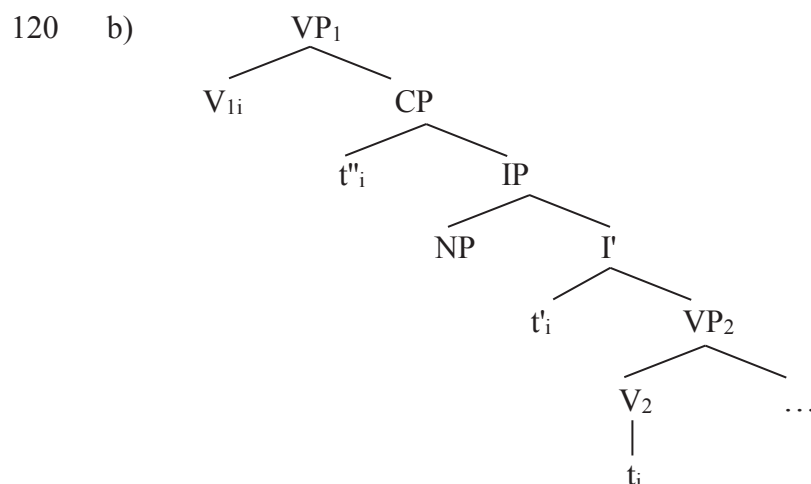
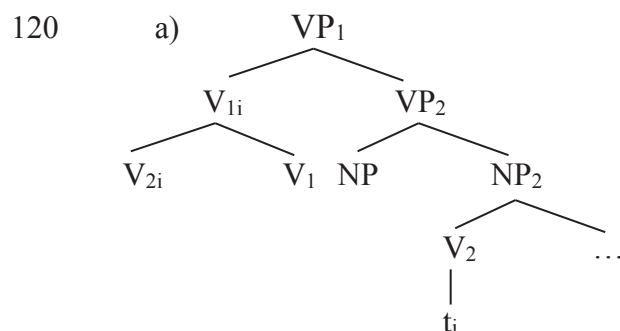
- 117 (a) Chris made Liz laugh.
 (b) *Chris made Liz to laugh.
 (c) *Chris made (that) Liz laughed.

The tree structure representation of the embedded VP complement to **make** in (117a), according to Li(1990:403), is (118). Note that there is no I projection in it.



- 119) A necessary condition on VI is that the matrix verb must take a bare VP as complement (the matrix verb must also be affixal in nature to trigger VI).

Li highlights more on the generalization in (119), distinguishing further between verbs that can trigger VI (verbs that subcategorize VP complements) and verbs (like **say** which take CP complements) that do not. The relevant true structure representations of a VI construction and non-VI-construction, highlighting this difference, are (120a) and (120b) respectively (with the embedded V2 moving to V1).



The embedded V2 in (120a) directly adjoins to the VI-triggering matrix verb, V1 with the assumption that VI prefers a bare VP complement. With a CP-complement taking verb in (120b), the embedded V2 will adjoin to V1 via I and C as required by the ECP (Baker 1988). Li gives the head movement chains in (120a) as (121a), while that in (120b) is (121b)

- 121a) <V, V>
 121b) <V, C, I, V>

He notes that there is a remarkable difference between the chain in (121a) and the one in (121b). The elements that form a chain in (121a) are of the same categorial status; they are both Vs. The elements of the chain in (121b) are not all of the same categorial status; the head and the tail are Vs, while C and I intervene in between.

According to Li, the sandwiched elements, C and I (121b) are a reminder of “improper movement” which is typical of a chain with one or more $\bar{A}$ (A bar) elements between two A-elements. This chain (121b) therefore, constitutes a violation of Chomsky’s (1986b) condition C(122) within the revised definitions of A and $\bar{A}$ given by Li (1990) where V elements (and some other elements) correspond to A-positions (cf. 123), while C and I correspond to $\bar{A}$ -positions. The consequence of these redefinition of A and $\bar{A}$ will be that the embedded V trace in (120b) (the rightmost one in (121b)) will be a variable locally $\bar{A}$ -bound by I, but A-bound by the matrix V leading to the violation of condition C (122).

122) An R-expression is A-free (in the domain of its maximal chain).

Since (121b) is the chain assumed to be formed by VI in a construction where the matrix verb takes a CP complement, it follows, according to Li, that VI can never take place in such a construction. Li, therefore, claims that it is for this reason that verbs that cannot take a VP complement (whether the verbs are affixal or not) never trigger VI. The embedded C and I within the construction will block VI due to condition C. This, however, contrasts with matrix verbs that take VP complement (cf. 120a and 121b) which are potential VI triggers because there is no intervening I or C to block the movement of the embedded verb to the matrix verb.

2.4.4.4 Li’s (1990) Revision of Chomsky’s (1986b) Binding Theory

Before presenting his own proposals about causative constructions, Li argues that Chomsky’s (1986b) definition of A-positions, as in (123), cannot be used for positions occupied by heads since heads (in syntax) do not receive theta roles.

123) An A-position is a D-structure position to which a θ -role can in principle be assigned.

In order to accommodate X^0 positions, Li proposes to extend (123) to a more general definition (124).

- 124) A T-position is a D-structure position to or from which a θ -role can in principle be assigned.

Li explains that a T-position means a “ θ -related” position that is directly involved in θ -assignment. In this sense, V, N, A and P are T-positions since they are occupied at D-structure by potential θ -assigners. C(omp) and D(et) are T'-positions; they dominate θ -assigners at D-structure. Also I (nfl), according to Li, is a T'-position, I assigns no θ -role, or at best, the θ -role it assigns differs fundamentally from the ones involved in determining T-positions. It is important to mention here that Li's position contrasts with that of Chomsky (1986a) who claims that I is directly involved in the assignment of θ -role.

The T-versus T' positions at X^0 level, as determined by (124), correspond to the distinction between lexical categories and functional categories. Li therefore proposes his revised binding condition, as in (125).

- 125 a) An anaphor is locally T-bound
 b) A pronominal is locally T-free
 c) A variable is T-free (in the domain of the head of its maximal chain)

A variable, according to Li, is defined in (125d).

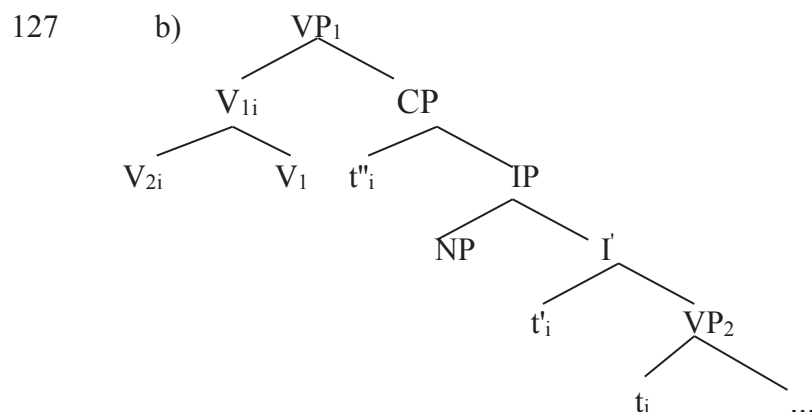
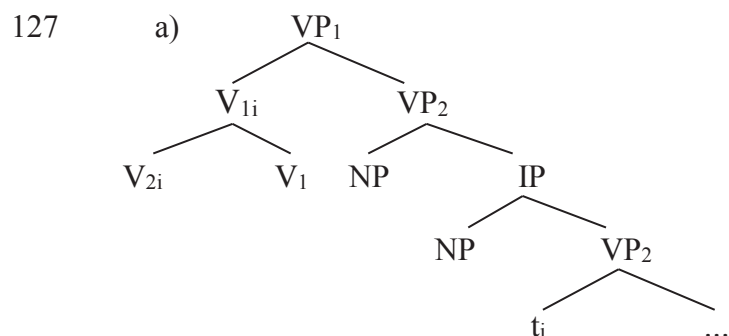
- 125 d) An empty category is a variable if and only if it is in a T-position and is locally T-bound.

Li assumes that binding relation holds only between elements of the same projection; XPs bind XPs while X^0 s bind X^0 s.

Applying his revised binding theory, Li further highlights the fact that an assumption that VI takes place in a construction where the matrix verb takes a CP complement, will violate condition C of his revised binding theory. In order to illustrate this, Li follows Chomsky (1986a) in making the following assumptions in (126).

- 126 a) Every segment of a node has all the (relevant) properties of the node.
 b) A c-commands B iff A does not dominate B and B is not excluded by the node immediately dominating A.
 c) A excludes B if no segment of A dominates B.

Using the same tree structures in (120a) and (120b), repeated here as (127a) and (127b), Li points out that in (127a) t_i is a variable since it is in a D-structure position and is locally bound by t'_i which is in the position of I (a T' position).



The same t_i is T-bound by the matrix verb, thereby violating condition C of Li's revised binding theory (125c). In the analysis here, Li assumes that the $V1_i$ dominating $V2_i + V1$ in (127a) is an element of the head movement chain and this node represents a D-structure position. By assumption (126a), Li observes that both $V2$ and $V1_i$ in (127a) count as T-positions, since they are segments of the node $V1$ which is in a D-structure θ -assigning position. By assumption (126b), $V2$ will not c-command its traces, since they are excluded by $V1_i$, the node immediately dominating $V2$. Since $V2$ cannot c-command its traces, it also cannot properly govern its traces, because government (in fact, proper government) is defined in terms of c-command (cf. Chomsky 1986a, Baker 1988). The ECP in (127a), according to Li, is however, satisfied by $V2$ which is assumed to percolate its features (Di Sciullo and Williams 1987) up to the complex node $V1$. Thus, the index of $V2$ will be carried by $V1_i$, and it is obvious from (127a) that $V1_i$ actually c-commands the traces of $V2$, hence, satisfying the ECP which requires every trace to be properly governed. Similarly, $V1_i$ is coindexed with t_i . $V1_i$ also c-commands and T-binds t_i . But the intervening T'-binders (C and I) lead to a violation of condition C of Li's revised binding-theory, lending support to the fact that VI cannot take place in a construction where a matrix verb takes a CP complement.

In (127b), however, Li notes that the index of $V2$, by the same reasoning used for (127a), percolates up to the complex $V1_i$ node. The $V1_i$ is a T-

position, and by (126a) T-binds the t_i trace. Given the fact that there is no intervening T'-binder between the binder and bindee in (127b), the t_i trace is not a variable subject to condition C, and the structure is well-formed.

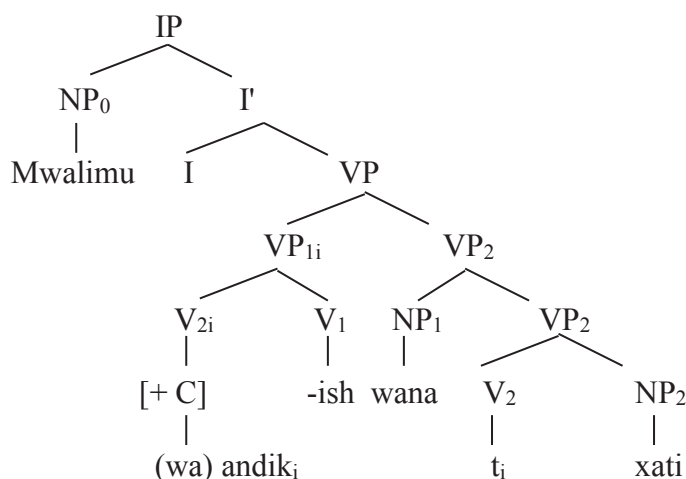
Li acknowledges that there are two types of morphological causatives, as distinguished by Marantz (1984). He also observes that Marantz tries to account for the differences between the two types of morphological causative constructions within the theory of morphological merger. Again, Li notices that in Baker (1988), the two types of morphological causatives are handled by Verb Incorporation (VI). That is, Baker argues for pure head movement for the type of morphological causative in which the causee functions as the direct object of the derived causative verb and VP movement plus head movement for the type of causative where the object of the embedded verb functions as the object of the derived causative verb.

Li goes on, providing an analysis of the two types of morphological causatives based on Marantz's and Baker's proposals, as well as his own analysis of VI. He refers to as **type 2** the derived morphological causative construction whose derived causative verb takes the causee as its direct object, while the other morphological causative construction whose derived morphological causative verb takes an embedded object as its direct object is referred to as **type 1**. Li (1990:409) makes the following assumptions about case assignment:

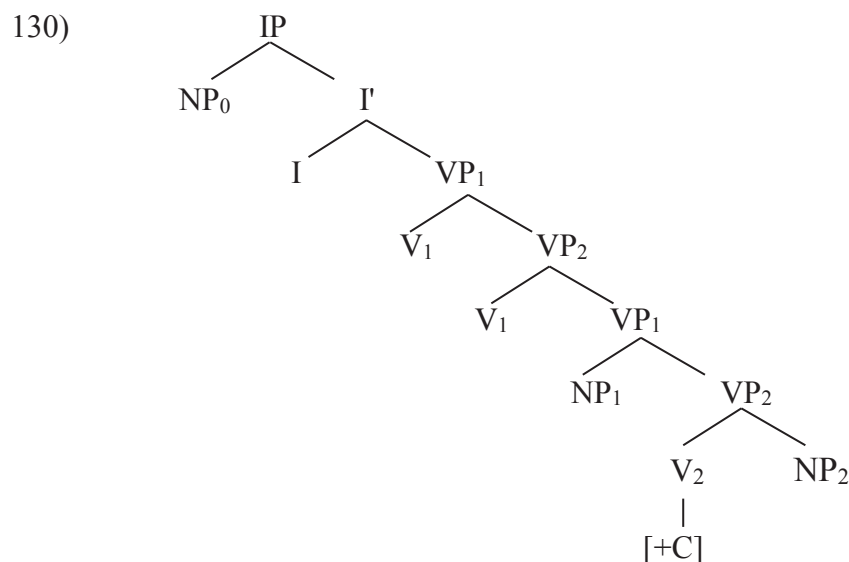
- 128 a) The case-assigning ability of a lexical item is either described with [+C], described with [-C], or unspecified. A constituent can potentially assign case when marked with [+C], cannot assign case when marked with [-C], and is otherwise unspecified. When a constituent is not specified with respect to [C], it of course cannot assign case, but it may acquire a plus or minus feature through some grammatical means and then behave accordingly.
- b) A [+C] verb can actually case-mark its argument only when its maximal projection is governed by I(nfl) or a [+C] constituent.
- c) An argument NP that is not case-marked in its D-structure position cannot be assigned an oblique case.

For a typical type 2 morphological causative construction (cf.111), Li provides the derivation in (129). The data used in the tree structure is from Chimwini (a Bantu language).

129)



In (129), Li assumes that the matrix causative verb, V1 is [+C] and by his assumption 128b), the V2 will assign case to NP2. In the same vein, NP1 will receive case from V1. The V2 raises, incorporating to V1. As Li emphasizes, the NP2 is case-marked by V2 before the raising of V2. He adds that if a language with the type 2 morphological causative allows only one NP on the surface and also only one accusative case (which is usually assigned adjacently), then only NP1 (the embedded subject) will have accusative case, while NP2 will be marked with oblique case. On the other hand, if a language (like Chimwini) allows two accusative cases in a single sentence, NP2 will also be marked as accusative. Li upholds the observation earlier made by both Marantz (1984) and Baker (1988) that the embedded subject functions as the direct object of the derived causative verb in this type of morphological causative. The type 1 causative construction (cf. 110: from Malayalam), according to Li, (following Marantz and Baker), has its embedded object functioning as the object of the derived morphological verb. Li, however, proposes that what distinguishes this type 1 from the type 2 morphological causative construction is his assumption that the causative verb in type 1 is unspecified for the [C] feature, while the embedded V is specified as [+C]. Since the matrix V is unspecified for [C], it then follows from Li's assumption (128b) that the embedded V cannot assign case to its object NP. For this reason, the embedded object NP must receive case from some other source. The D-structure of a type 1 morphological causative construction, according to Li, is (130). Note also that due to Li's assumption (128c), it is not possible to assign an oblique case to NP2.



Li maintains that the only way out of this dilemma is to move NP₂ to a position to which case may be assigned. Note also that NP₁ must move to receive case. However, the structure in (130) has no such positions for the movement of NP₂ and NP₁. Li further maintains that (130) cannot be the correct structure for a type 1 morphological causative construction. He therefore pursues an alternative structure, invoking Larson's (1988) Argument Demotion Proposal stated here as (131).

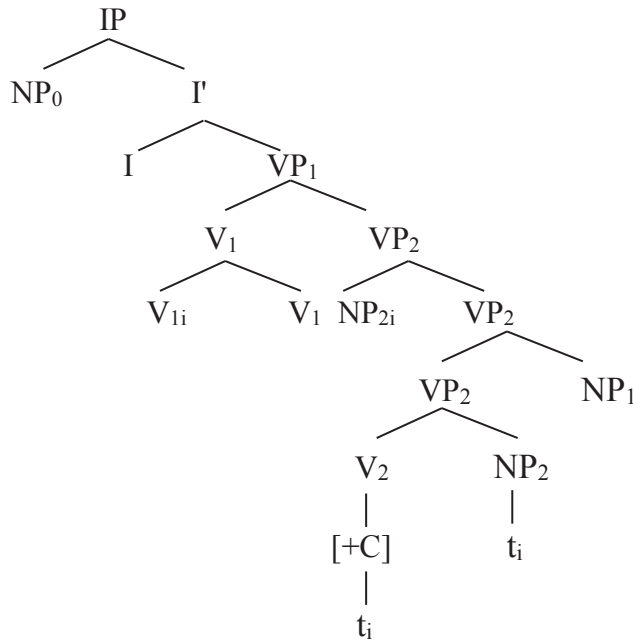
131) If α is a θ -role assigned by X', then α may be assigned... to an adjunct of X'.

With the proposal in (131), plus the assumption that the external argument of a verb can be optionally generated as the subject of a VP small clause, Li gives the derivation in (132) as an alternative to (130) for the type 1 morphological causative construction.

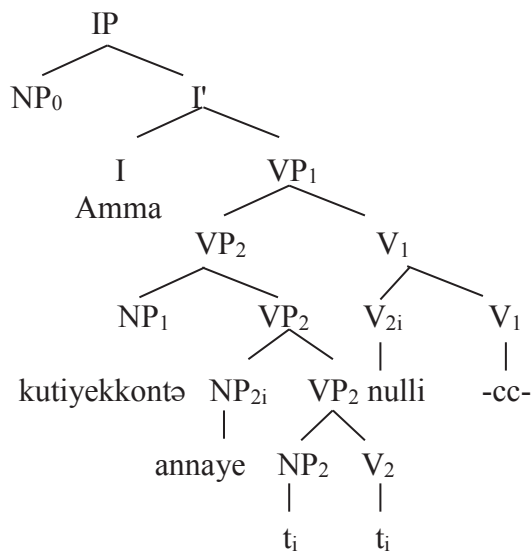
The incorporation of V₂ to V₁ ensures that V₁, which hitherto was unspecified for [C], becomes [+C] under Di Sciullo and William's (1987) feature percolation. Having acquired the [+C] feature, the V₁ is now able to case-mark the specifier of VP₂ which NP₂ raises to. NP₁ is still without case but eventually gets an oblique one, since according to Li, it is not in a D-structure position, and assumption (128c) does not apply to it. Using the Malayalam sentence in (110) which is a typical example of a type 1 morphological causative construction, we have the tree structure in (133). The only difference between (133) and (132) lies in their word order.

Note that NP₁ in (132) or (133) is assumed to be optionally generated as the subject of a VP small clause; hence, it is this NP₁ that gets the oblique case.

132)



133)



An analysis of type 1 morphological causative construction such as the one in (132) or (133), according to Li, provides a way to explain another phenomenon characteristic of type 1 morphological causative constructions. He reports that Baker (1988) notices that cross-linguistically, type 1 morphological causative constructions often allow the causee (132 or 133) to be implicit. Again, the Chichewa example in (134) from Baker (1988) further illustrates this phenomenon.

- 134) Amayi a-na-ki-its-a mtsuko pampando
 women SP-past-put-cause-ASP waterpot on chair
 ‘The women made someone put the waterpot on the chair’

As can be observed in (134), the causee NP is not explicitly expressed. Li argues that the optionality of the causee NP can be explained given the derivation in (132) and (133) and the case theory which he assumes (cf. 128). Recall from (132) or (133) that the causee (NP1) is base-generated in an adjunct position and this makes it inaccessible for accusative case-marking by either V1 or V2. This is why it is assigned the oblique case, so as to pass the case filter. Li, therefore, supposes that the assignment of oblique case is optional in Chichewa, and that NP1 will be unable to have phonetic content when no case is ever assigned to it.

The theoretical review of causatives so far has revealed that Comrie (1976a&b); Marantz (1984), and Baker (1988), following Aissen (1974), Kayne (1975) and Shibatani (1976), favour a biclausal analysis for all causative constructions. Whereas Aissen (1974), Kayne (1975) and Shibatani (1976) treat morphological causative constructions as syntactically biclausal at D-structure which then transform into an essentially monoclausal one, Marantz and Baker are of the opinion that, in addition to being syntactic in nature, there is as well, a clear morphological dimension associated with morphological causative constructions.

For Marantz, his principle of morphological merger ensures that a causative verbal morpheme in a matrix clause merges with a non-causative verb in a lower clause, thus, forming the derived causative verb. Baker, on the other hand, views the formation of morphological causatives as an instance of Verb Incorporation, where a verb undergoes head raising to the causative verbal morpheme. Baker points to the apparent existence of ECP effects in morphological causatives as evidence favouring his proposal.

Both Marantz's and Baker's analyses of morphological causatives are in many respects similar. For instance, neither Marantz nor Baker allows a lexical operation to change the argument structure of the verb; the syntax is responsible. Both Marantz and Baker distinguish two types of morphological causatives, noting that in type 1, the object of the embedded verb becomes the object of the derived causative verb while in type 2, the embedded subject of the embedded verb functions as the object of the derived causative verb. Also, Marantz and Baker argue that the intrinsic difference between type 1 and type 2 morphological causative constructions is further highlighted by the way both types interact with the binding theory. For the type 1, the causee loses its subject properties and thus, does not block binding of the object of the embedded clause by the matrix subject (Malayalam provides this example). In the type 2, the subject of the embedded clause, the causee serves as a specified subject blocking the binding of the object of the embedded clause from outside that clause.

The principal difference between Marantz's and Baker's analyses includes the fact that Marantz argues that the type 1 morphological causatives

behave as though they are monoclausal through out the course of their derivation, having undergone merger at D-structure, while the type 2 remains biclausal until S-structure where they are collapsed by merger. Baker, on the other hand, argues that both types are syntactically biclausal until S-structure where incorporation applies resulting in a monoclausal construction. Another major difference between Marantz's and Baker's proposals resides in the fact that Marantz's principle of morphological merger is invoked to do the work that head-movement does for Baker. However, as Hendrick (1995) points out, it remains unclear what, if any, empirical features distinguish Marantz's morphological merger from Baker's head-movement.

Li's (1990) analysis of causatives shares one clear similarity with Baker's syntactic derivation of morphological causatives by head-movement. Li's treatment and analysis, however, differ from those of Marantz's and Baker's by his assumption that all types of causative constructions embed VPs and not clauses. In order to justify his assumption, Li appeals to his extended version of the binding theory.

From this theoretical review, it is obvious that generally, causative constructions have been analyzed as either biclausal or monoclausal. Evidently, the controversy has been centred on the status of the constituent that complements the causative verb in both the syntactic and morphological causative constructions. There seems to be no divergence cross-linguistically, about the monoclausal status of lexical causative constructions. It is also obvious from the theoretical review that Comrie's (1976a) analysis of causatives is based on the Relational Grammar theoretical framework. His analysis however, has a limited explanatory force since it is only linked to the notion of grammatical relations. The analyses of Marantz (1984), Baker (1988) and Li (1990), on the other hand, are based on the GB theory. The GB theory as we observe from these accounts does not focus on the motivation for the covert or overt movement of categories from one syntactic position to the other in the course of derivation of a construction, hence the GB theory does not provide structural positions for checking off the features of categories.

In the chapters that will follow, we shall focus on the Igbo causatives and how they are expressed. We shall show that the three major types of causative constructions (analytical, morphological and lexical) are attested in Igbo. We shall argue that the Igbo causatives are subject to the three major economy principles (Shortest Move, Greed and Procrastinate) of MP. We shall show in line with MP assumptions that the overt or covert movement of categories from one position to the other is for selfish reasons (Greed). Specifically, in our discussion on the derivation of Igbo analytical causative, (section 3.1.4), we shall invoke the MP Principles: Shortest Move, Greed and Procrastinate to account for the covert raising of the embedded subject to [Spec, AgroP] given the Exceptional Case Marking (ECM) nature of the matrix causative verb.

This is a phenomenon which the GB theory is not equipped to handle. Also, in the derivation of the Igbo morphological causative (section 4.1.1), the MP principles of Greed and Shortest Move are required to account for the raising of the embedded intransitive verb to the causative verbal element. Furthermore, we shall also argue in line with MP assumptions, that Igbo lexical causative verbs (non-bipositional and bipositional) (sections 5.2 and 5.3) are byproducts of the lexicon from where they are fully inflected and then projected onto overt syntax.

Chapter 3

Analytical Causative Constructions

3 Preliminary Remarks

This chapter discusses the analytical causative construction as well as the complement to the causative verb in Igbo.

3.1 The Analytical Causative Construction

The Igbo analytical causative construction consists of two verbs: a causative verb which occurs in the matrix clause and a non-causative verb which occurs in the embedded clause. The causative verb is **-me** ‘cause/make’, while the non-causative verb can be of any type (transitive or intransitive verb). The non-causative verb occurs within a dependent constituent which complements the matrix clause containing the causative verb. The data in (1) are examples of analytical causative constructions in Igbo.

- 1a) Ezè òmèrè ìtè ahù àdhàa
Ezè pr.cause/make-rv-past pot that E-pr.fall E-suffix
‘Eze caused/made that pot to fall’
- b) Ezè òmèrè Àdha erie jī
Eze pr.cause/make-rv-past Adha E-pr.eat E-suff.yam
‘Eze caused/made Adha to eat yam’

As the data in (1a-b) reveal, the causative verb is **-me** ‘cause/make’ which subcategorizes for a matrix subject **Ezè**, the “causer” of the event denoted by the analytical causative construction. Also, each of the constituents which complements **-me** in (1a-b) has an embedded verb, **-dhà** ‘fall’ in (1a) and **-ri** ‘eat’ in (1b). Each of these embedded verbs licenses an NP “subject” which semantically functions as a “causee”. In both (1a-b) the causee NP appears between the causative verb and the constituent which complements the causative verb, thus interrupting the adjacency between the causative verb and the embedded verb. The implication of this is that the causative verb and the embedded one do not count as a single unit in syntax, rather, each of them counts as a separate morpho-phonological word.

The external argument of the embedded verb under the Igbo causative **-me** may be syntactically realized overtly or as pronominal clitics. In (1a-b), the

external arguments of the embedded verbs are realized overtly as the causee NPs **itè ahụ** ‘that pot’ and **Àdha**. In (2a-c), however, the external arguments of the embedded verbs are syntactically realized as impersonal pronominal clitics (**a/-e**). It is important to note that the impersonal pronominal clitics are not coreferential with the subjects of the causative **-me** in the matrix clause.

- 2a) Ezè òmèrè à-dhàà adhà
 Eze pr.cause/make-rv CL-fall-suff. pr.fall
 ‘Eze caused/made someone to fall’
- b) Ezè òmèrè e-rie ji
 Eze pr.cause/make-rv CL-eat-suff. yam
 ‘Eze caused/made someone to eat yam’
- c) Ezè òmèrè à-gaa ahia
 Eze cause/make-rv CL go-suff. market
 ‘Eze caused/made someone to go to the market’

The situation we observe in (1-2) in Igbo where the external argument of the embedded verb under the causative **-me** can be either an NP or an impersonal pronominal clitic is different from what has been observed in Romance (French). As reported by Zubizarreta (1985), the external argument of the embedded verb under the causative **faire** ‘make’ in addition to being overt in some constructions, may also remain syntactically covert. The examples in (3a-b) are from Zubizarreta (1985:263), showing that the embedded subjects can be covert.

- 3a) Ce médicament fait dormir
 ‘This medicine makes (someone) sleep’
- b) J’ai entendu sonner à la porte
 ‘I heard (someone) ring the door bell’

Zubizarreta notes that even though the examples of the French analytical causative constructions cited in (3a-c) do not manifest any overt embedded subjects, it can be observed from the English glosses that semantically, there is an understood subject. The understood subject, Zubizarreta adds, cannot be interpreted as coreferential with the subject of the causative **faire** ‘make’, rather it can be given an impersonal, indefinite or even generic interpretation. Thus, in Igbo (like in English) (cf. 4a-b & 5a-b), the subject of the embedded complement to the causative verb in an analytical causative construction must

show its overt presence while in French, the analytical causative construction can be of two types; those whose embedded subject is realized syntactically and those whose embedded subject is not realized syntactically.

- 4a) * John made fall.
- b) * John made eat food.
- 5a) John made Mary fall.
- b) John made Mary eat food.

3.1.1 The Complement to the Causative ‘-me’

There have been some arguments about the categorial status of the constituent that complements the causative verb in an analytical causative construction cross-linguistically. These arguments have led to the emergence of divergent views about the categorial status of such a constituent. Both Comrie (1976a, 1985b) and Baker (1988) assume that cross-linguistically, a CP complements the causative verb in analytical causative constructions. The VP-hypothesis proposed for Romance causatives by Vergnaud (1971) and Burzio (1981) is another view. The assumption of the VP-hypothesis is that a causative verb in (Romance) causative constructions subcategorizes for a VP and not a full clause. This proposal of VP-complement for Romance causatives has been maintained by Zubizarreta (1985) and Guasti (1997).

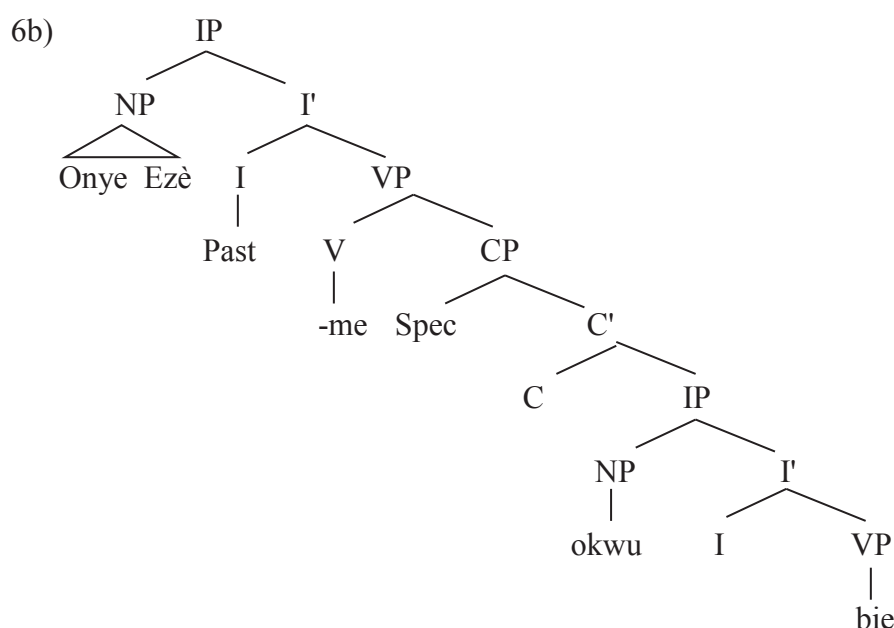
Drawing examples from Italian, Guasti (1997:131) argues further that the infinitive complement of the causative in Romance does not seem to project the complete array of projections assumed for a typical clause. According to her, a typical clause, for instance, has the potentiality of accommodating certain functional projections with overt evidence for their presence. Some of these functional projections include the CP, AgrsP, NegP, TP and AgrP. For the Romance causatives, Guasti notes that the CP, NegP, TP and AgrP are not present in the infinitive complement to the causative verb. She therefore concludes that the fact that the infinitive complement to the causative verbs does not contain the aforementioned functional projections in contrast to other infinitival complements to other (non-causative) verbs is enough proof that the infinitive complements to causative verbs in Romance are VPs. It is this VP-hypothesis that explains why the causee argument may simply not be overtly realized syntactically because the syntax does not provide a structural position for it (Zubizarreta 1985).

For English analytical causative constructions, however, Zubizarreta (1985:266) argues for a clause complement to the causative verb. This position, however, contrasts with that of Li (1990:402), who, following the VP-hypothesis, notes that “what is interesting about the causative verb (perhaps cross-linguistically) is that its complement, though containing a verbal projection rarely takes the form of a full clause”. Li admits that it is hard to

notice that a causative verb takes a VP complement, especially when causativization arises through verb incorporation (VI) except in languages like English where (in analytical causatives) the causative verb stands alone and ensures that the difference between it and a normal clause taking verb (e.g. know) becomes clear. Li (1990) argues strongly that the causative **make** in English does not take as a complement, a finite clause or even an infinitive with **to** but takes an embedded verb which must be in its bare form.

Following Baker (1988), Uwalaka (1995a:158) gives (6b) as the structure of Igbo **-me** analytical causative construction involving an intransitive verb.

- 6a) Onye Ezè mètè okwu ahù èbìe
 person chief cause-rv-past talk that E-pr-end E-suff.
 'The chief made the case to come to an end'



As evidently revealed by the structure in (6b), Uwalaka assumes that the constituent which complements the causative verb **-me** is a CP. Uwalaka (1995a:160), however, states that in the formation of causative structures based on transitive verbs, Igbo complements the use of compound verbs with the use of consecutive/serial structures, as in (7) below.

- 7) Àdha mètè di ya ārụọ ụlò
 Adha cause-rv past husband her E-pr.build house
 'Adha made her husband build a house'

Uwalaka (1995a:161) further states that while causative constructions involving transitive verbs are limited to consecutive/serial (periphrastic causative) structures (e.g 7), causatives of intransitive verbs optionally occur as verb incorporation constructions or periphrastic consecutive/serial structures

(cf. 6b). Still, Uwalaka believes, as being correct Li's (1990) claim that "the complement of causative verbs, though containing a verbal projection, rarely takes the form of a full clause but an embedded VP which does not involve the projection of an I (nfl)". Uwalaka concludes by stating that "the lack of I in non-initial verbs is claimed to be an outstanding characteristic (feature) of the consecutive/serial verb construction".

From Uwalaka's analysis of analytical causative constructions (periphrastic causative constructions), it is obvious that there are certain contradictions and inconsistencies which her analysis does not resolve. First, by her analysis, the structure in (7) doubles as a consecutive/serial structure as well as an analytical causative structure. This is, however, not the case since (as she correctly points out) the lack of I(nfl) (for non-initial verb) is claimed to be a characteristic feature of serial constructions. Following Baker (1988), Uwalaka agrees that the constituent which complements a causative verb is a CP (cf. 6b). She also assumes as being correct Li's (1990) claim that a VP complements the causative verb in an analytical causative construction. Thus, Uwalaka's analysis gives the impression that she favours both a CP (Baker 1988) and a VP (Vergnaud 1971, Burzio 1981, Zubizarreta 1985 and Li 1990) complement for Igbo causative verbs.

Before stating our position regarding the categorial status of the constituent which complements the causative verb in Igbo, we shall first, argue that the causative construction in (7) which, according to Uwalaka (1995a), doubles as a serial verb construction (SVC) and a causative construction is, as we shall show, an analytical causative construction and not an SVC. If our argument regarding this assumption is tenable, it will strengthen our position regarding the status of the constituent which complements the causative verb in Igbo.

An SVC, according to Trask (1993:251), is "a construction in which what appears to be a single clause semantically is expressed syntactically by a sequence of juxtaposed separate verbs, all sharing the same subject or agent but each with its own additional arguments, without the use of overt coordinating conjunctions". Of particular interest to us about the definition given by Trask is the fact that all the verbs in an SVC share the same subject. This means that the successive verbs indicate simultaneous action performed by the same subject (cf. Li and Thompson 1976, Lord 1975, Bamgbose 1974, Emenanjo 1978, Ikoru 1996). The data in (8) exemplify some types of SVCs in Igbo. Note that all the verbs in each SVC share the same subject, and all the actions of the verbs are carried out by the subject NP.

- 8a) Òbì òjìrì mmà gbuo òke (Instrumental)
 Obi pr.take-rv-past knife kill rat
 'Obi killed the rat with a knife'

- b) Òbi òsòrò enyì ya gaa ùlò (Accompaniment)
 Obi pr.follow-rv-past friend his go house
 ‘Obi accompanied his friend home’
- c) Àdha ògàrà ahia zùọ jì sie rie (Sequential)
 Adha pr.go-rv past market buy yam cook eat
 ‘Adha went to market bought yam, cooked and ate it’

In (9), the actions of the verbs carried out by the subject NP in the SVC in (8c) have been itemized. Also note that the verbs (9a-d) have only one subject, **Àdha**.

- 9a) Àdha ògàrà ahia
 ‘Adha went to market’
- b) Àdha òzùrù jì
 ‘Adha bought some yams’
- c) Àdha òsìrì jì
 ‘Adha cooked yam’
- d) Àdha òrìrì jì
 ‘Adha ate yam’

The analytical causative construction in Igbo, like the SVC has more than one verb; it has a matrix causative verb and an embedded non-causative verb. Unlike the SVC, however, the analytical causative construction has two NPs which function as agentive subjects. The subject of the matrix causative verb semantically functions as the causer agent; the direct instigator of the action expressed by the embedded verb (Trask 1993:38), while the embedded NP subject functions semantically as the causee agent; the participant NP instigated by the causer agent to carry out the action expressed by the embedded verb. This shows that more than one NP subject is involved in the overall event expressible by an analytical causative construction. Thus, in (7) repeated as (10), **Àdha** is the causer agent, while ‘**di ya**’ ‘her husband’ is the causee agent.

- 10) Àdha mèrè di ya arụọ ùlò
 ‘Adha made her husband build a house’

In (11), we have also separated the matrix causative verb and the embedded verb with each, having its own agentive subject, unlike in an SVC, where all the verbs share one subject.

- 11a) Àdha mèrè (ya)
 ‘Adha made/caused it’

- b) Di yā rùrù ụlò
‘Her husband built a house’

The examples in (9) show that the SVC is related to two or more independent clauses (cf. Lord 1975, Bamgbose 1974, Emenanjo 1978). This is also the case with the analytical causative construction, as examples in (11) show. No language has been reported to have more than one subject for a clause and the Igbo SVC shows overt evidence of a subject which immediately precedes the first verb and also serves as a covert subject for the other verbs in the SVC. Each of these verbs is relatable to an independent clause where the hitherto covert subject becomes overt. The independent clauses in (11) derived from the analytical causative construction in (10) each, has a subject NP. The subject NP *Àdha*, in (11a), functions as the matrix subject in (10), while the NP *di yā*, ‘her husband’ functions as the embedded subject. Given the fact that (10) contains two separate subjects, (10) is not an SVC, but an analytical causative construction, and whatever constituent which complements the matrix causative verb subcategorizes for a subject NP. In the next section, we shall argue that the complement of the causative verb in Igbo is not a CP (Baker 1988) or a bare VP (Li 1990), but a clause, an AgrsP, whose specifier, we shall posit, licenses a causee subject NP. We shall appeal to evidence from topicalization, clefting and pronominal clitic strategies to support our argument.

3.1.2 Topicalization, Clefting and the Subject Pronominal Clitic Strategies

Both topicalization and clefting are used to focus or give some communicative prominence to a constituent over and above other constituents within a construction. Topicalization is “the phenomenon in which some element of a sentence is singled out as the ‘topic’ by the use of a marked construction” (Trask 1993:280). Clefting, on the otherhand, is “the syntactic device by which a focused constituent is extracted from its logical position and often set off with some additional material, including an extra verb” (Trask 1993:46). These definitions show that both topicalization and clefting involve giving communicative prominence to some constituent within a construction.

A clitic is an item which exhibits behaviour intermediate between that of a word and that of an affix. “Typically, a clitic has the phonological form of a separate word, but cannot be stressed and is obliged to occupy a particular position in the sentence in which it is phonologically bound to an adjoining word, its host” (Trask 1993: 46). Clitics can exhibit a low degree of selection with respect to their hosts while affixes exhibit a high degree of selection with respect to their stems (Katamba 1993). A subject pronominal clitic is obliged to occur at the subject position and is bound to a following finite verb (e.g. *Je*, ‘I’, *tu* ‘you’ in French). A subject pronominal clitic is different from a resumptive pronoun. A resumptive pronoun according to Trask (1993:240) is

an overt pronoun which occurs within a relative clause (in certain types of relative clause constructions) in its ‘logical’ position, instead of a gap (cf. Reimsdijk and Williams 1986). Trask cites the example in (12a) from English noting that **she** is a resumptive pronoun.

12a) That is the woman that I did not know if **she** was coming.

Trask further adds that the resumptive pronoun strategy is not limited to relative clauses. He points out that in a left-dislocation, it is a resumptive pronoun which occurs in the non-dislocated part of the sentence and is coreferential with a dislocated NP. Again, the English example in (12b) where **her** is the resumptive pronoun is from Trask (1993:240).

12b) Lisa, I really like **her**.

Uwalaka (1995:280) argues that the resumptive pronoun is fully grammaticalized in Igbo and that it occurs in interrogatives (13), left-dislocated structures (14), purpose clauses (15) and complement clauses (16).

13) Ngozi $\dot{O}_i$ gàrà ahia?
 Ngozi she go-rv-past market
 ‘Did Ngozi go to the market?’

14) $\dot{O}bi_i$, $\dot{O}_i$ bụ nwokē
 Obi he be man
 (As for) Obi_i , he_i is a man

15) Ngozi bjàrà [_{CP} kà [_{IP} $\dot{O}_i$ hụ ha]]
 Ngozi come-rv-past that she see them
 ‘Ngozi came to see them’

16) Ezè_i mà [_{CP} nà [_{IP} $\dot{O}_i$ gà-àbụ onye isī]]
 Eze knows that he will pr.be person head
 ‘Eze_i knows that he_i will be a leader’

We shall however, refer to what Uwalaka calls resumptive pronouns as pronominal clitics. As pronominal clitics, they have the phonological form as well as the distributive pattern of words (cf. Trask 1993) but cannot be conjoined with other full-fledged NPs. They are obliged to occupy the subject position of the constructions where they occur though, they are phonologically bound to a following verb.

Thus, it is a pronominal clitic that occurs in IP-internal subject position as $\dot{o}$ in (13), (14), (15) and (16). It occurs in the subject position, serving as

copies of NPs which are adjoined to the left of IP. The pronominal clitic (as a last resort strategy) must occupy the subject position site vacated by the NP adjoined to the left of IP, else ungrammaticality will result, as shown in (17).

- 17a) *Ngozi-gàrà ahia?
Ngozi go-rv-past market
- b) *Obi-bū nwoke
Obi be man
- c) *Ngozi bìàrà kà-hū ha
Ngozi come-rv-past that-see them
- d) *Ezè mà nà gà-àbụ onye isī
Eze know that Aux-pr-be person head

Thus, the pronominal clitics occupy the subject positions of clauses and not of VPs. Note that these clauses contain finite verbs. Thus, our assumption is that the IP-adjoined NPs are moved from clauses and not VPs and that the pronominal clitic strategy applies to make sure that the structures from where the IP-adjoined NPs originate do not lose their clause structure.

Now, let us go back to the complement to the causative verb in Igbo. The constructions in (18) and (19) are analytical causative constructions. (18) is based on a transitive verb, while (19) is based on an intransitive verb.

- 18) Ezè òmèrè Àdha erie ji
Eze pr.make/cause rV-past Adha E-pr.eat E-suff. yam
'Eze made/caused Adha to eat yam'
- 19) Òbi òmèrè Egō àdhaa
Obi pr.make/cause rV-past Ego E-pr.fall E-suff.
'Obi made/caused Ego to fall.'

The causee NPs **Àdha** and **Egō** in (18) and (19) have been topicalized in (20) and (21) respectively.

- 20) Adha_i Ezè òmèrè **O_i** rie ji
'Àdha, Eze made her eat yam'
- 21) Egō_i, Òbi òmèrè Ò_i dhàa
'Ego, Obi made her fall'

In (22) and (23), the same causee NPs have been focused on by clefting.

22) Ọ̀ bù Àdha_i kà Ezè m̀̀rè Ọ̀_i rie jì
 ‘It is Adha that Eze made to eat yam’

23) Ọ̀ bù Egō_i kà Òbi m̀̀m̀rè Ọ̀_i dhàa
 ‘It is Ego that Obi made to fall’

From (22-23), it is observed that when the causee NP is topicalized or focused, the pronominal clitic strategy applies, occupying the position of the topicalized or focused causee NP. This suggests that the focused or topicalized NP it replaces, functions as a subject to the constituent which complements the causative **-me**. This constituent which complements the causative **-me** must be a clause since it has a subject which is assigned a nominative case by the INFL of the complement clause. It is in fulfilment of the EPP that the pronominal clitic must occupy the site vacated by the focused NP.

3.1.3 Anatomy of the Clause Complement to the Causative Verb ‘-me’

The internal structure of the complement clause to the causative **-me** may consist of certain functional projections, and these include the subject Agreement Projection (AgrsP) which is associated with the canonical preverbal subject position. The subject of the complement clause can be checked for the canonical nominative case features at [Spec, AgrsP] of the complement clause or be exceptionally case marked for accusative case by the preceding causative verb of the matrix clause. The complement clause to the causative may contain the negative marker =ghì, as in (28). This suggests that NegP may be available.

28) Ezè m̀̀m̀rè Àdha erighì jì
 ‘Eze made Adha not to eat yam’

The clause complement to the causative **-me** always contains a Tense projection though there is no overt evidence for it. The verb of the complement clause necessarily refers to a sub-part or aspect of a single over-all event. For this reason, the embedded verb acquires ‘covertly’ the tense properties of the matrix verb. This means that tense, having been overtly marked on the matrix verb (cf. 18 and 19), becomes a feature of the embedded verb; hence, it is redundant to mark it again. It is important to note that complement clauses to the causative **-me** always show overt presence of the tense markers (cf. 11a-b) when they appear as finite declarative clauses.

The object Agreement Projection (AgroP) is the projection associated with the assignment of accusative case. It may be available within the clause

complement to **-me** depending on whether the verb of the complement has an NP object with accusative case features to check off. A transitive verb will have an NP with accusative case features to check off, while an intransitive one will not.

These observations about the complement clause to the causative **-me** in Igbo point to the fact that certain functional projections which include: AgrsP, NegP, AgroP and TP are possible within the complement clause. A plausible way of interpreting these observations is to say that the complement clause to **-me** has all the attributes of a clause, and is therefore, a projection of Agrs. One strong evidence in support of this claim that the complement to the causative **-me** is a clause, is that it has a declarative counterpart with the same argument structure. For instance, compare the complements of the causative **-me** in (18) and (19) with (29) and (30) respectively.

29) Àdha òrìrì jì
'Adha ate yam'

30) Egò òdhàrà
'Ego fell'

3.1.4 The Derivation of the **me** - Analytical Causative

We have argued that the analytical causative construction in Igbo is syntactically biclausal and we propose the structure in (31) for it.

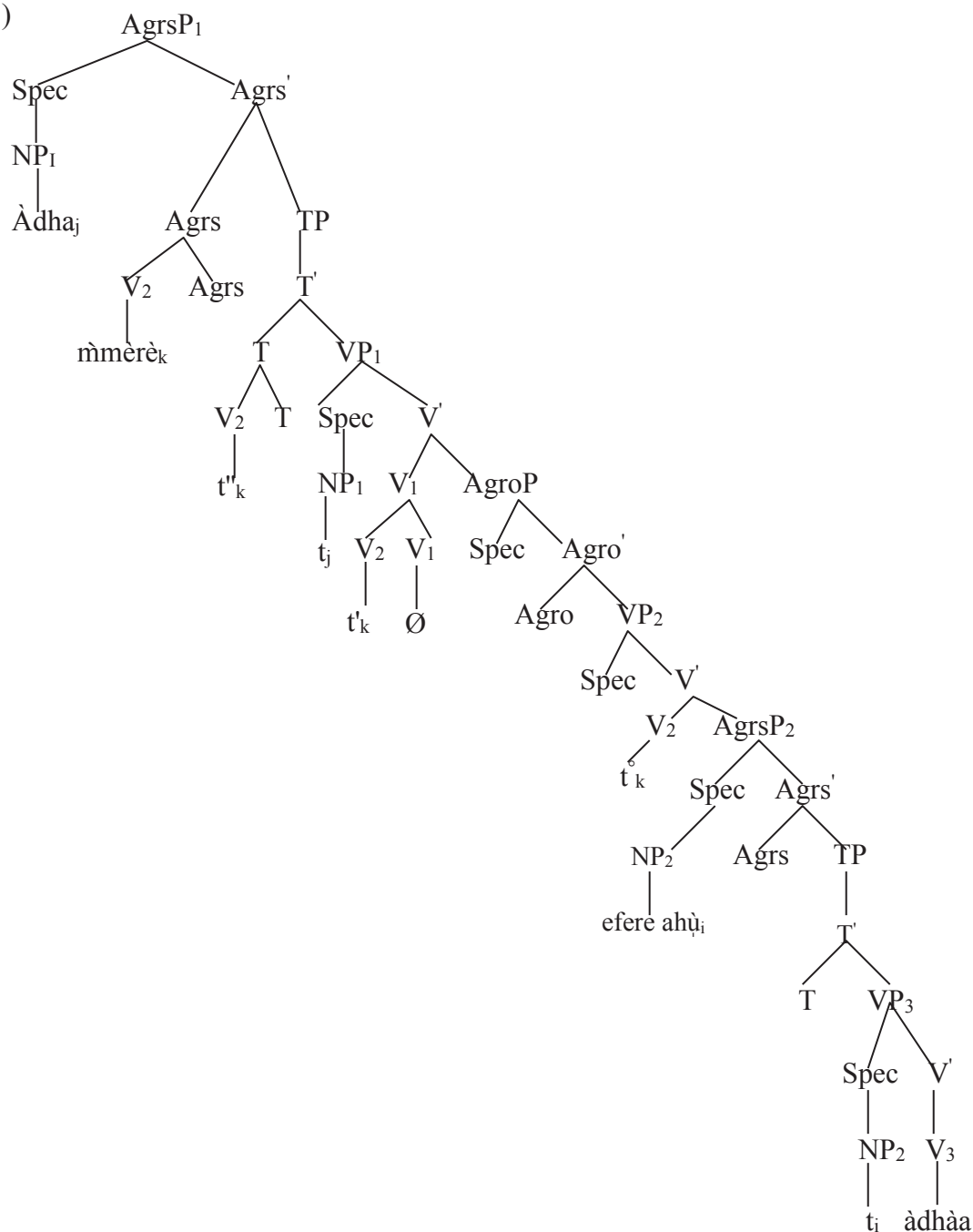
31) [_{IP} NP V [_{IP} [NP VP]]]

In this section, we shall focus on the stage-by-stage derivation of the analytical causative construction in Igbo within the MP framework adopted in this work. We shall use the example in (32).

32) Àdha òmèrè efere ahù àdhàa
'Adha made the plate fall'

The tree structure representation of (32) is (33). From (33), it is obvious that the verb **àdhàa** 'fall' which is selected in its fully inflected form projects to a V-bar (V'). The V' merges with **efere ahù** 'that plate' (NP₂) to form a VP (VP₃). The VP₃ projects to Agrs' which also projects to AgrsP₂. The NP₂, **efere ahù** in [Spec, VP₃] raises to [Spec, AgrsP₂] where it checks its nominative case features. The AgrsP₂, in turn, merges with the causative verb **òmèrè**, projecting a matrix VP (VP₂). The matrix VP₂, in turn, merges with an Agro constituent which eventually projects to AgroP.

33)



We shall adopt the light verb (V) analysis for the causative constructions in Igbo. Before we apply it, we shall first, briefly discuss its proposal.

3.1.5 The Abstract Light Verb Proposal

In line with ideas put forward and developed by Larson (1988) and Chomsky (1995), Radford (1997:198) has argued that VPs have a complex structure, comprising an inner VP and an outer VP shell, and that some arguments (e.g. agents) originate within the outer VP shell, while others (e.g. themes) originate

within the inner VP. This proposal further states that the outer VP is headed by an abstract affixal (strong head) light verb (V) (which may have no phonetic content) with a causative interpretation. Radford notes that it is the outer VP shell that merges with an agentive subject to project the complex VP.

Kitahara (1997), however, argues that the light verb (V) (of the outer VP shell) is a functional category that has neither a morphophonetic nor a semantic justification. He further argues that functional categories are grammatically motivated either by output conditions at PF and/or LF. Whereas, according to Kitahara, the functional categories T(ense), D(eterminer) and C(omplementizer) have semantic justification (T has a [finiteness] feature, D has a [referentiality] feature and C has a [mood] feature), the light verb, on the other hand, is motivated solely by the theory-internal need to preserve the predicate-internal subject hypothesis while protecting Larson's (1988) VP shell for subject and object arguments.

As a reaction to Kitahara's claim; Stroik (2001:362) demonstrates that "the light verb is not precariously dependent upon theory-internal arguments for its justification; rather, it is justified morphophonetically and semantically" as the other functional categories. Supporting his claim, Stroik appeals to evidence from the helping verb **do** in English. He notes that the helping verb **do** in English which is distinct from the main verb **do** in (34) is a non-main verb that shows up either as an auxiliary helping verb or as a non-auxiliary helping verb.

34) Chris did the job

Stroik observes that the helping verb **do** can bear tense as in (35a); while as a non-auxiliary helping verb, **do** can also bear aspect, as in (35b-c).

35a) Chris likes Pat, but Sam doesn't like her.

b) Chris is leaving now, and Sam is doing so too

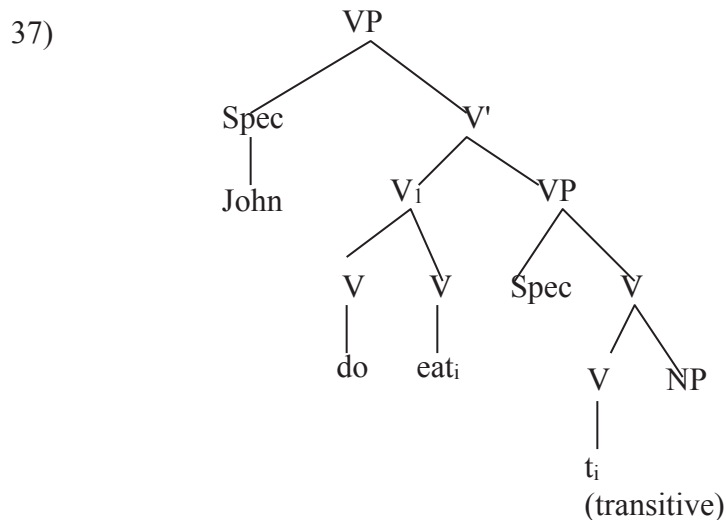
c) Chris has left already, and Sam has done so too.

The important point to note about (35), according to Stroik, is that the helping verb **do** can display all the morphological reflexes (the [V forms]) that main verbs in English do. This suggests that the verb form [V form] feature which is morphologically checked (under the minimalist assumptions) by the main verb, can also be checked by the helping verb **do**.

Following Chomsky (1995), Stroik adds that uninterpretable morphological features must be checked in appropriate checking domains, and since the [V form] of a main verb is a morphological feature, it must therefore, under minimalist assumptions, be checked. Stroik, therefore, argues that for a sentence such as (36), the main verb certainly cannot be checked within its VP because there is no position for checking it there.

36) John does eat yam.

Even if it were possible for the main verb to check its [V form] feature within its VP, according to Stroik, the [V form] feature on the helping **do** in (36) would not be checked against the [V form] feature of the main verb. This is because feature lowering is not a permissible operation in MP. Stroik maintains that the main verb must raise to check its [V form] feature against the [V form] feature of the helping **do**. The helping **do** is generated at the head of the abstract light VP (small VP), as shown in (37).



It is after the checking of the [V form] feature of the main verb that the helping **do** raises, checking its tense or aspectual features at the appropriate functional nodes above the light VP. Stroik adds that checking the main verb [V form] feature below or above the light VP will render the light VP syntactically ill-motivated, since it would be a functional projection that does not appear to participate in any feature checking (cf. Chomsky 1995). Stroik therefore concludes that in cases where there is the helping verb **do** with a main verb, it is the helping **do** that heads the light VP, while the light VP takes a main VP complement. The light V (**do** in 36) has a [V form] feature that the head of its complement VP (the main V) must check by raising to it. In structures where the **do** support does not apply, the light VP is also projected but headed by an abstract light verb (with no phonetic content) to which a main verb must raise to for feature checking purposes. It is at the specifier of the light VP, [Spec, VP] that agentive NPs originate from.

3.1.6 More on the Derivation of Analytical Causatives

Following Larson (1988), Chomsky (1995), Radford (1997) and Stroik (2001), we shall adopt the abstract light verb analysis for the **-me** analytical causative construction in Igbo. In line with this analysis, we posit that in (33), the AgroP

merges with the V (head of the light VP), projecting a related V-bar (V^1) which in turn merges with the agentive NP₁, **Àdha** to project VP₁. Given the split INFL hypothesis (cf. Pollock 1989, Belletti 1990, Chomsky 1993, Radford 1997) adopted in the MP, the VP₁ projects a TP, an Agrs, and finally an AgrsP₁. The causative verb **mere** raises from its position, V₂, and adjoins to the head of the causative light verb. The agentive NP₁, **Àdha**, on the other hand, raises from [Spec, VP₁] to [Spec, AgrsP₁], checking its nominative case features in a Spec-head relation.

Note that the V₂ in (33) represents **mere**, the causative verb which in tandem with V₁ (by feature percolation of Di Sciullo and Williams 1987), theta-marks its causer agentive subject, **Àdha** in [Spec, AgrsP₁]. The subject, NP₁ **Àdha** had picked up the **causer** role at [Spec, VP₁] before raising to [Spec, AgrsP₁]. It is the causative verb **mèrè** that selects a sub-event to be caused (by an agent) which is indicated as AgrsP₂, a clausal projection. Specifically, the agent is a composite theta-role which comprises the causer role and volitionality (cf. Fujita 1996). Given Chomsky's (1993, 1994) principle of Greed, the overt raising of the causative V₂ **mèrè** to V₁ must be triggered by a certain morphological feature of V₂ itself. In fact, we propose that V₂ has a strong feature, [+causative] that must be checked by V₁ (cf. Bowers 1993).

By the principle of procrastinate, the raising of NP₂, **efere ahù** from [Spec, AgrsP₂] to [Spec, AgroP] applies covertly at LF, after spellout. This ensures that NP₂ is promoted to be a causee agentive theme given the Exceptional Case Marking (ECM) nature of V₂. Since it is V₂ together with V₁ that theta-marks [Spec, VP₁] and not [Spec, VP₂], it follows that [Spec, VP₂] counts as a non-theta position, and for this reason may remain unprojected. It is, however, necessary that the [Spec, VP₂] is projected so as to be used as an escape hatch for the covert raising of NP₂ **efere ahù** to [Spec, AgroP].

Similarly, the principles of Shortest Move and Greed are both fulfilled in the derivation of (33). For example, the overt movement of NP₂, NP₁ and V₂ is guided by the Shortest Move principle which requires that a constituent should move the shortest distance possible in any single movement operation. Each of these constituents has moved to the next hierarchically closest position of the right kind in an upward direction. In the same vein, the movement of these constituents is feature-driven in fulfilment of the principle of Greed.

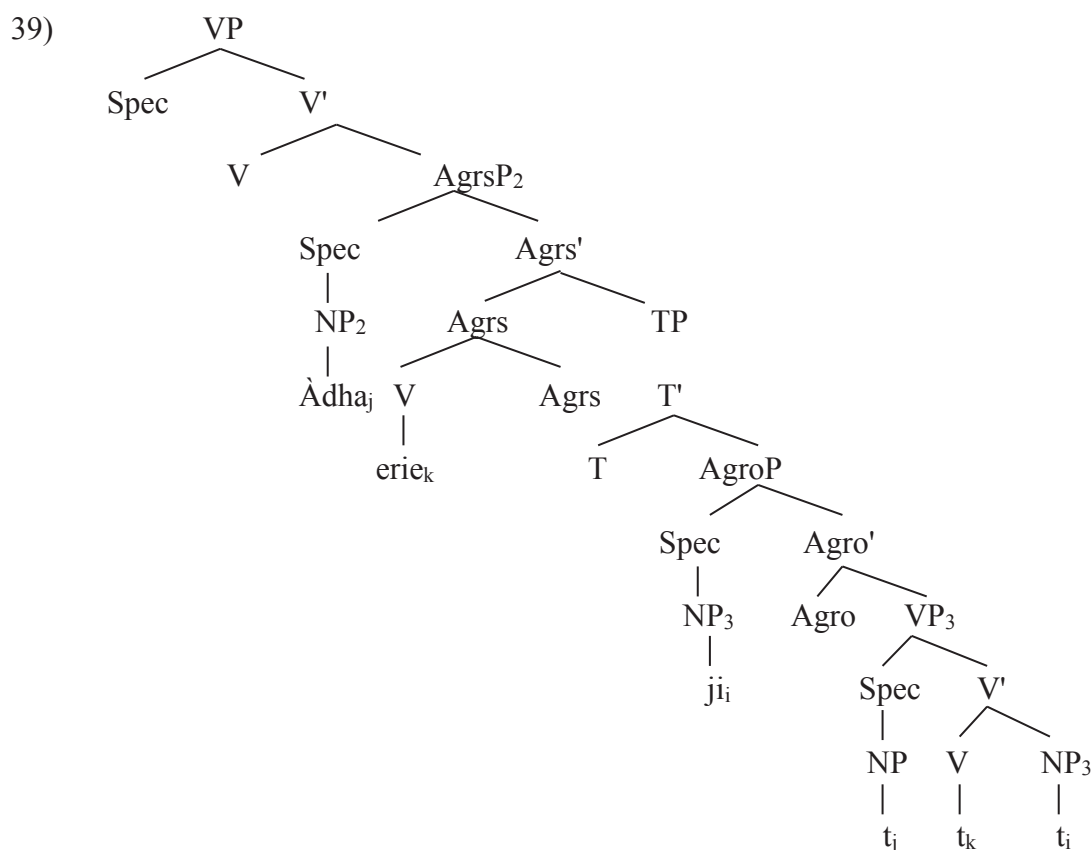
The traces t_i and t_j left behind by the respective movement of NP₂ and NP₁ are c-commanded by NP₂ and NP₁ at the head of the movement chain, and are thus, properly governed in fulfillment of the ECP. The V₂ will not c-command its trace t''_k , since this trace is excluded by V₁, the node immediately dominating V₂. It therefore, follows that V₂ will not properly govern its traces, because government (and in fact proper government) is defined in terms of c-command (cf. Baker 1988, Chomsky 1986a). In order to satisfy the ECP which requires every trace to be properly governed, we shall follow Di Sciullo and

Williams (1987) to assume that the relevant features of V_2 percolate up to the compound node V_1 . The implication of this is that the index of V_2 will also be carried by the compound V_1 which in fact does c-command the trace of V_2 , t_k , satisfying ECP.

As mentioned earlier, the structure in (33) represents an analytical causative construction based on an intransitive verb. The derivation of an analytical causative construction based on a transitive verb such as (38), however, differs from that of (33) in terms of the internal configuration of the AgrsP_2 , the complement clause to the causative verb.

- 38) Àdha nìmèrè Òbi erie ji ahù
 Adha pr.cause/make-rv past Obi pr.eat-suff. yam that
 'Adha made Obi eat that yam'

The internal structure of the AgrsP_2 in (38), unlike that in (33), will contain an internal object NP merged with the head of VP_3 ; hence, the need for an AgroP within the AgrsP_2 . It is at the $[\text{Spec}, \text{AgroP}]$ of AgrsP that the internal NP object checks its accusative case having raised from its original position. The tree structure in (39) shows the internal structure of the AgrsP_2 of an analytical causative construction based on a transitive verb.



Chapter 4

Morphological Causative Constructions

4 Preliminary Remarks

In Chapter 2, we discussed morphological causatives in general linguistic theory, and noted from data drawn from a wide variety of languages that in this type of causative, a morpheme expressing causation and a verbal root amalgamate to form a single morphological causative (cf. Comrie 1985b, Baker 1988 and Marantz 1984).

In this chapter, we shall discuss the Igbo morphological causative, their make-up and how they are derived.

4.1 The Morphological Causative Constructions

The Igbo morphological causative construction which is essentially monoclausal consists of a causative compound verb usually relatable to a series of morphologically simple verb (cf. Lord 1975, Uwalaka 1995). This means that although the morphological causative construction appears monoclausal, it is syntactically biclausal in origin, having been derived from two clauses. It is relatable to an analytical causative construction which comprises a main clause, containing the verb **-me** and a complement clause which contains an intransitive verb. The verbs **-medhà** 'cause to fall', **-mèthe** 'cause to wake', **-mènyu** 'cause to extinguish' and **mezhè** 'cause to collapse into rubble' include some of the derived morphological causative verbs.

Similarly, the constructions in (10) are morphological causative constructions, having been based on morphological causative verbs.

- 1a) Àdha **m̀medhàrà** efere ahù
Adha pr.cause/make fall-rv-past plate that
'Adha caused/made that plate fall'
- b) Àdha mmèthèrè Eze
Adha pr.cause/make-make rv past Eze
'Adha caused/made Eze wake up'
- c) Àdha m̀mènyùrù ọkhù ahù
Adha pr. cause/make-extinguish rv past fire that
'Adha caused/made that fire go off'

- 4) Àdha òmègbùrù Òbì
 Adha pr.do-kill-rv past Obi
 ‘Adha cheated obi’

A comparison of (1a-d) with (2a-d) also shows that, whereas the causative verbal morpheme **-me** is amalgamated with an intransitive verb root in (1a-d), in (2a-d) the same causative verbal morpheme **-me** takes a complement clause. Note, however, that in (1a) and (2a), for instance, *efere ahù* ‘that plate’ is an argument of **-dha** ‘fall’, that is, it has the same thematic relation with **-dha**, a fact which is clearly shown by the non-causative (5).

- 5) Efere ahù òndhàrà
 Plate that pr-fall-rv past
 ‘That plate fell’

Thus, in the formation of the morphological causative construction, the arguments of both the verbal causative morpheme and its intransitive counterpart are reflected. This is in line with Roeper and Siegel’s (1978) proposal which states that all the obligatory arguments of an argument-taking lexical item (which is a member of a compound) must be syntactically realized (cf. Selkirk 1982, Lieber 1983 and Marantz 1984).

Uwalaka (1995:160) correctly observes in Igbo, that “morphological causative formation is very productive with intransitive verbs but (that) Igbo does not causativize transitive verbs”. This, according to her, accounts for the ungrammaticality of (6).

- 6) *Ngozi mè-rùrù di ya ụlò
 Ngozi cause-build-rv-past husband her house.

Uwalaka states that this fact which is attested in Igbo is also true of a number of languages that have morphological causative structures. She further points out that in the formation of causative structures, Igbo complements the use of compound verbs with the use of consecutive/serial structures, as in (7).

- 7) Àdha mèrè di ya arọ ụlò
 Adha cause-rv past husband her E-pr.build house
 ‘Adha made her husband build a house’

Uwalaka therefore concludes that while causative constructions involving transitive verbs are limited to periphrastic causative structures, causatives of

intransitive verbs optionally occur as verb incorporation constructions or as periphrastic consecutive/ serial structures.

The observations made by Uwalaka (1995) about the morphological causatives in Igbo are also true of Igbo except, as we have argued earlier on (in section 3.2) that the analytical (periphrastic) causative structures are not serial/consecutive structures. Again, whereas the causative verbal morpheme **-me** is transitive both in its causative (cf. 1a-d, 2a-d) and non-causative use, its counterpart in a derived morphological causative verb is always intransitive. This means that, as Uwalaka (1995) observes, **-me** does not causativize with a transitive verb. This accounts for the impossibility of the following (cf 8) hypothetical causative morphological verbs in the grammar of Igbo.

- 8a) *Mèri ‘cause to eat’
- b) *Mèta ‘cause to cheer’
- c) *Mèga ‘cause to go’

Thus, causative constructions based on transitive verbs are expressed through analytical (periphrastic) causatives.

The fact that intransitive verbs causativize with **-me**, while transitive ones do not can be explained based on the nature of both classes of verbs. Intransitive verbs inherently do not subcategorize for internal arguments. However, the amalgamation of the transitive causative verbal morpheme **-me** with an intransitive non-causative verb root (which expresses some event) allows the transitive feature of the causative morpheme to percolate to the intransitive verb root. The consequence of this union is that the resultant morphological causative complex becomes a transitivized whole and can therefore, subcategorize for an internal argument (cf. 1a-d).

There are, however, certain verbal structures that are superficially similar to the causative morphological verbs. The first member of such verbal structure is always the verbal morpheme **-me**, while the second member may be a verb root (e.g. gbu ‘kill’), as in (9a) or an extensional suffix (ES), as in (10). Verbs of the type in (9a) can be classified as morphological non-causative verb compounds, and there are also further sub-divisions within the class.

- 9a) Ezè òmmègbùrù ha
 Eze pr.do-kill-rv past them
 ‘Eze cheated/maltreated them’.
- b) Ezè ògbùrù òke
 Eze pr.kill-rv past rat
 ‘Eze killed a rat’

- 10) Ezè òmmèchhàrà ya
 Eze pr.do-ES (finish) rv past it
 ‘Eze finished doing it (completely)’

As can be observed, the V + V (**-me** + **-gbu**) in (9a), though a morphological compound verb, is not a causative compound but an idiomatic morphological compound verb. The verb in (8), (*mèchha*) is neither a morphological causative compound verb nor a non-causative morphological compound verb. The verb structure in (10) comprise the literal verb **-me** “do” plus an ES = **chha** ‘finish (completely)’ which has extended the lexical meaning of **-me**. Also, consider the morphological compound verbs in (11) whose first members each is also the verbal morpheme **-me**.

- 11a) Ezè òmmèkpàrà Àdha ahù
 Eze pr.do-maltreat-rv past Adha body (IC)
 ‘Eze maltreated Adha’
- b) Ezè òmmètùrù itè ahù aka
 Eze pr.do-point-rv past pot that hand (IC)
 ‘Eze touched that pot’
- c) Ezè òmmèmàrà Àdha
 Eze pr.do-be good-rv past Adha
 ‘Eze treated Adha well/Eze was nice to Adha’
- d) Ezè òmmèjòrò Àdha
 Eze pr.do-be bad-rv past Adha
 ‘Eze treated Adha badly/Eze was not nice to Adha’

The morphological compound verbs in (11a-d) are non-causative. The verb compounds in (11a-b) belong to the class of inherent complement morphological compound verbs. They obligatorily co-occur with nominal elements which are inherent to them. Those in (11c-d) belong to the class of adjectival morphological compound verbs. Although all these verbs (9a, 10, 11a-d) have a superficial structure similar to the morphological causative verbs (cf. 1a-d), they do not have a causative reading and therefore, their argument structure will not include subjects and objects which can be analyzed as causative agents and causee patients, but as non-causative agents and non-causee patients respectively.

There is still another distinguishing factor between the **-me**-morphological causative compound verbs and the **-me**-morphological non-causative

compound verbs. This difference lies in the observation that the second member of a morphological causative verb compound can appear anticausatively. For instance, the second members of each of the morphological causatives in (1a-c) have been used in an anticausative construction (12a-c). Note that the external arguments of these anticausative constructions each, functions as the internal argument of the morphological causative verb in (1a-d).

12a) Efere ahù ndhàrà
Plate that pr.fall-rv past
'That plate fell'

b) Ezè òthere
Eze pr.wake-rv past
'Eze woke-up'

c) Okhù ònyurù
fire pr.extinguish rv past
'The fire went off'

The second member of a non-causative morphological compound verb, on the other hand, cannot be involved in an anticausative construction. This accounts for the ungrammaticality of the sentences in (13a-f). Compare each of these ungrammatical (13a-f) with each of (9a), (10) & (11a-d).

13a) *Ha mgbùrù
They pr-kill-rv-past

b) *Ọ chhàrà
3sg. ES-rv-past

c) *Àdha m̀kpàrà àhù
Adha pr.-maltreat-rv-past body

d) *Ìtè ahù òtùrù aka
pot that pr.-hit-rv-past hand

e) *Àdha m̀màrà
Adha pr.-be-beautiful

- f) *Àdha òjòrò
Adha pr.-be-bad

The ungrammaticality of (13a), for instance, can also be accounted for by the fact that the verb **-gbu** ‘kill’ is inherently transitive and cannot be used intransitively. Even as a second member of a non-causative compound verb, **-gbu** ‘kill’ still retains its transitive feature. As mentioned earlier, the morphological verb compound (9a) where **-gbu** occurs as a second member is semantically, “idiomatic”, since its meaning (cheating/maltreatment) cannot be deduced from its component parts **-me** “do” and **-gbu** “kill”. Other non-causative morphological compound verbs having **-gbu** as their second member include **-chìgbu** (**-chì** ‘rule’ + **-gbu** ‘kill’) ‘cheat by ruling’ and **ghògbu** (ghò ‘deceive’ + gbu ‘kill’) ‘cheat by deception’.

Similarly, the constructions in (13b-f) are not possible in the grammar of Igbo, and this is due to the nature of the verbal morphemes. The morpheme **=chha** in (13b), for instance, is not a lexical verb, but an extensional suffix (ES) that must attach to a host. This means that **=chha** does not exist as a lexical verb which can have an argument structure in the grammar of Igbo. This explains why (13b) is an impossible sentence in Igbo. Additional evidence why **=chha** is an ES is based on the observation that it is always a regular attachee to other verbal hosts where its meaning remains the same. Examples include the following:

- | | |
|--------------|--|
| 14a) rì-chha | ‘eat up (something) completely/finish eating |
| eat ES | (something).’ |
| b) tà-chha | ‘chew up (something) completely/finish |
| chew ES | chewing (something).’ |

Another reason why the morphological verb compounds in (9a, 10 & 11) are not morphological causative verb compounds, can be explained in terms of the thematic paraphrase relationship which exists between a morphological causative construction and its analytical counterpart. Recall that we had stated that every Igbo morphological causative construction has a corresponding analytical causative construction as its thematic paraphrase. Again, we observed that the reverse is not always the case. This is because, unlike for intransitive verbs, morphological causative formation with transitive verbs is not a possible option in Igbo. The implication of this situation, as noted earlier (Uwalaka 1995), is that causative constructions involving transitive verbs are restricted to analytical causative structures. If the constructions in (9a), (10) and (11) were morphological causative constructions, one would expect them to have thematic analytical paraphrases. This is, however, not the case since the

structures in (15a-f) are not possible grammatical thematic paraphrases of those in (9a), (10) and (11) respectively.

- 15a) *Ezè òmèrè ha ègbuo
 Eze pr.cause/make-rv them pr.kill-suff
- b) *Ezè òmèrè ya àchhaa
 Eze pr.cause/make him/her pr.ES.suff
- c) *Ezè òmèrè Àdha àkpaa ahù
 Eze pr.cause/make-rv Adha pr.maltreat body
- d) *Ezè òmèrè ìtè ahù àtùò aka
 Eze pr.cause/make-rv pot that pr.point-suff hand
- e) *Ezè òmèrè Àdha àmaa
 Eze pr.make/cause-rv Adha pr.be beautiful-suff
- f) *Ezè òmèrè Àdha àjọọ
 Eze pr.cause/make-rv Adha pr.be ugly-suff

4.1.1 Morphological Causatives and Head Movement/Incorporation

Various notions have been used in the literature to capture the phenomenon of verb to verb movement (Guasti 1997:133). For instance, both Manzini (1983) and Rouveret and Vergnaud (1980) have appealed to the notion of **reanalysis**. Reanalysis, according to them, is a process by which two independent verbs are reanalyzed as one which inherits properties from its members. Other notions which have been used to describe this phenomenon include **predicate raising** (Aissen 1974) **merger** (Marantz 1984, Rosen 1989) and **clause union** (Gibson 1980).

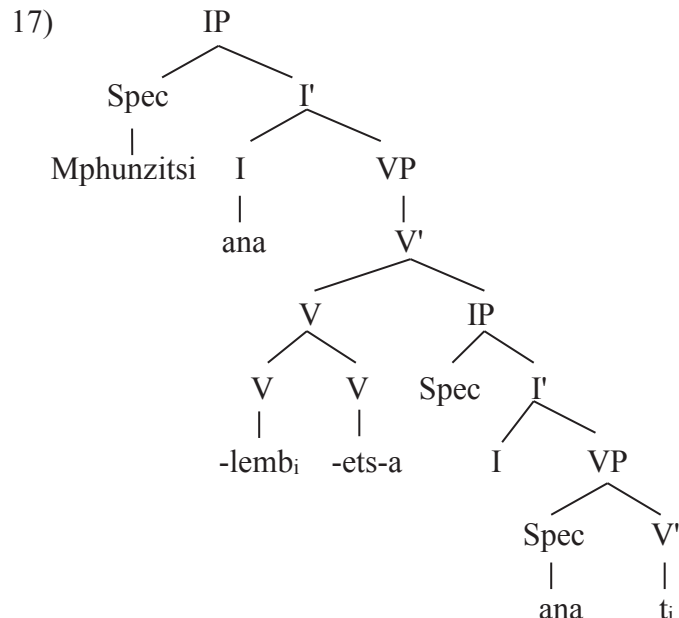
The notion of reanalysis, according to Guasti (1997), though useful in capturing the causative pattern in languages, still remains an adhoc device with limited explanatory force. Guasti further states that detailed work on morphological causatives, (Marantz 1984, Baker 1988) has shown that the notion of reanalysis can be traced back to the notion of incorporation which is itself an instance of movement of one head to another. According to Baker (1988), incorporation is a process whereby one lexical element is associated with another. It involves movement rules that shift constituents around in sentences. Its key feature is that it alters the government relation between predicates and arguments, which results in a change in grammatical relations. The moved constituents may end up as elements within phrases or inside

words. If it is within words, morphological and syntactic changes take place which result in a complex word similar to compounding. In fact, according to Katamba (1993), words derived through incorporation are like compounds produced by derivational morphology. Noun incorporation (Mithun 1984), verb incorporation (Marantz 1984, Baker 1988, Guasti 1997) and preposition incorporation (Marantz 1984, Nwachukwu 1987, Baker 1988, Ndimele 2000) have been reported in various languages. In each of these instances, a noun, verb or preposition is incorporated by a verb producing a complex verb. In Igbo, we shall be concerned with verb to verb incorporation.

In his analysis of morphological causatives in Chichewa (a Bantu language), Baker 1988:46) proposes that at D-structure the causative affix-**ets** ('make') and the verbal root **lemb** ('write') in (16) are heads of two distinct verbal projection.

- 16) Mphunzitsi a-na-lemb-ets-a ana
 teacher Agrs-past-write-make Asp.children
 'The teacher made the children write'

At the S-structure, the verbal head **lemb** 'write' raises and incorporates with the causative affix to form a complex causative verb. This incorporation analysis of Baker is an instance of the familiar head-to-head movement. The incorporation/head movement in (16) is structurally shown in (17) (with the use of the notation with a simple IP).



Baker further states that the proposal according to which the causative affix and the verb root head different verbal projection is based on what he calls the

Uniformity of Theta Assignment Hypothesis (UTAH). He states UTAH as (18).

18) *Uniformity of Theta Assignment Hypothesis:*

Identical thematic relationship between items are represented by identical structural relationships between those items at the level of D-structure (Baker 1988:46).

Baker goes on to illustrate how UTAH works using the data in (19) and (20) from Chichewa.

(19) Mtsikana a-na-u-gw-ets-a mtsuko

girl Agrs-past-AgrO-fall-make-Asp water pot
'The girl made the waterpot fall'

(20) Mtsikana a-na-chit-ets-a kuti mtsuko-u-gw-e

girl Agrs-past-do-make-Asp that waterpot-Agr-fall-Asp.
'The girl made the waterpot fall'

(Baker 1988:148)

Baker notes that in (19), the causative affix **-ets** is amalgamated with a verbal root, **-gw**. In (20), the same affix is amalgamated with a dummy verb, **chit** 'do' and takes a finite complement introduced by a complementizer. Another interesting observation is that (19) and (20) are paraphrases of each other. The NP **mtsuko** 'waterpot' is an argument of **gw-** 'fall' both in (19) and (20). By UTAH, the thematic relationship between the NP **mtsuko** 'waterpot' and **gw-** 'fall' must be represented identically in both (19) and (20). Thus, if **gw-** heads a VP including the argument **mtsuko** 'waterpot' in (19), the same must happen in (20); that is, **gw-** 'fall' also heads the VP in the causative complement. Let us turn to the derivation of morphological causative constructions in Igbo.

We have noted that every morphological causative construction in Igbo has an analytical counterpart which is its thematic paraphrase. The reverse is, however, not always the case, because there are some analytical causative constructions which do not have a morphological thematic paraphrase. In fact, we observed that morphological causative formation is not possible with transitive verbs, while it is possible with some intransitive verbs and yet not with others. For instance, consider the example in (21) where (21b) a morphological causative formation with the intransitive verb **-nwu** 'die' is ungrammatical.

21a) Ezè òmèrè

Àdha anwụọ

Eze pr. make/cause-rv past Adha E-pr.die E-suffix
'Eze made/caused Adha to die'

- b) *Ezè òmènwùrù Ìdha
Eze pr.cause/make die-rv Adha

Whereas an analytical causative construction can be based on either a transitive or an intransitive verb, a morphological causative construction must be based on an intransitive verb but not all intransitive verbs. The implication of this observation is that the analytical causative construction represents the ‘unmarked’ **-me** causative construction while the morphological one represents the ‘marked’ one. In this work, we shall assume that a morphological causative construction is syntactically derived from its corresponding analytical thematic paraphrase. The reason for this assumption is because the presence of a morphological causative construction implies the presence of its analytical counterpart in the grammar of Igbo. Thus, the formation of a morphological causative construction provides an alternative option for the expression of analytical causatives based on intransitive verbs.

The Igbo morphological causative construction falls into the type two of Marantz’s (1984) and Baker’s (1988) classification of morphological causatives (see chapter 3). Deriving it from its corresponding analytical causative thematic paraphrase involves a change of grammatical function (GF) with respect to one of the arguments. The subject NP of the clause complement to the causative verb (of analytical causative construction) undergoes a GF change by becoming the object NP of the derived morphological causative verbs. This is in consonance with Baker’s (1985) opinion that what GF changing processes have in common is the movement of some lexical element from one position in a sentence to a new position.

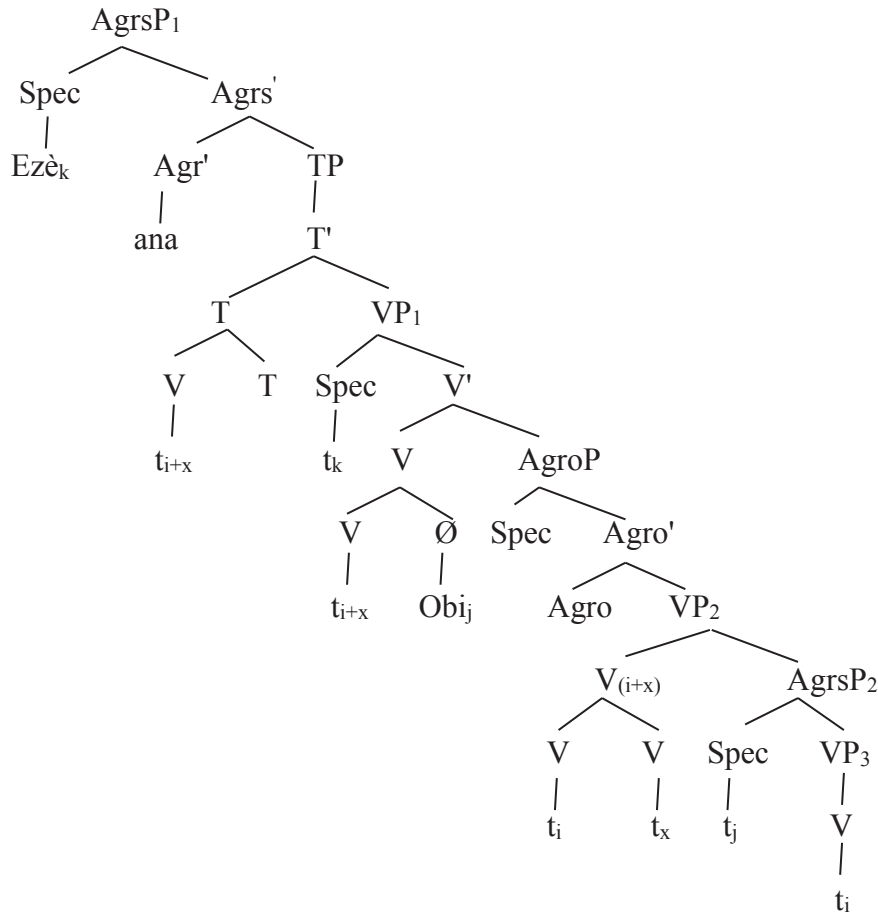
Following Marantz (1984), Baker (1988) and Uwalaka (1995), we propose that the process of incorporation (head-to-head movement/merger) applies in Igbo morphological causatives. Also, we assume that there are no empirical properties which distinguish Marantz’s (1984) merger and Baker’s (1988) head-to-head movement (incorporation). To this extent, our view is that the difference between the two is merely terminological.

Prior to the morphological merger, the causative verb and the embedded verb are derived from the lexicon where they project to head two distinct verbal projections in the analytical causative construction. During the merge operation, the embedded verb merges with the causative verb, thus forming the morphological causative verb, as in (22).

- 22) Ezè òmedhàrà Òbi
Eze pr.make/cause fall rv past Obi
‘Eze made/caused Obi to fall’

The construction in (22) has the tree structure in (23). Note that the structure in (23) is in the spirit of UTAH (cf. Baker 1988).

23)



As can be observed in (23), incorporation, that is head-to-head movement is involved in the derivation of Igbo morphological causatives. The head of VP₃, the V, **-dhara** in the embedded AgrsP₂ raises and adjoins to the head of VP₂, the matrix causative V thereby forming a morphological causative single verb compound (V_{i+x}). The NP **Òbi** which is generated at [Spec, AgrsP₂] raises, to [Spec, AgroP] of the matrix causative clause where its accusative case features are checked in a spec-head relation. Subsequently, the AgroP merges with the abstract causative light verb (cf. Larson 1988, Chomsky 1995, Radford 1997, Stroik 2001) at whose specifier position the agentive NP **Ezè** is generated. The derived morphological causative verb further, adjoins to the head of the abstract causative light VP from where it raises through T for the purposes of checking its tense features, and finally to **Agr** for agreement features. In the same vein, the agentive NP **Ezè** raises to the [Spec, AgrsP] where its nominative case features, are checked in the spec-head (Agrs) relation.

4.1.2 The Morphological Causative & the Empty Category Principle (ECP)

It is obvious from the derivational history of (23) that the overt head-to-head movement is involved in the formation of morphological causatives in Igbo.

However, in the spirit of the principles and parameters approach, we shall follow Guasti's (1997) ideas to assume that there is no special rule of morphological causative formation in Igbo. Morphological causative constructions are derived through a primitive property operating on analytical causative constructions.

As part of the requirements of the principles of UG, empty categories resulting from movement are not randomly generated. They must be connected to their antecedent(s) for proper interpretation (cf. Baker 1988, Roberts 1991, Guasti 1997). According to Rizzi (1990), the relevant connection necessary for interpretation of empty categories is antecedent-government which is subject to strict locality conditions. Rizzi notes that certain government relations can be blocked by intervening barriers or by potential governors. For instance, in a configuration like (24), Rizzi observes that X is unable to antecedent-govern its trace, if Z is a potential antecedent governor for it.

24) * $X_i [Z t_i]$

Rizzi (1990) (cf. Guasti 1997) further states that a potential antecedent must be of the same type as the real governor to count as an intervener or barrier. An antecedent-government relation may involve an A, A', X⁰. These requirements are summed up in Rizzi's revised relativized minimality condition (cf. Haegeman 1994) given in (25).

25) *Relativized Minimality:*

x β -governs y if there is no z such that:

ii) z is a potential β -governor for y

iii) z c-commands y but it does not c-command x.

For the morphological causative in (23), the trace, t_i , left behind by the movement of the embedded V, **-dha**, may at first, seem not to be properly governed. However, following Di Sciullo and Williams' (1987) feature percolation proposal, the incorporation of the embedded V by the causative verbal morpheme **-me** ensures that the relevant features of the embedded V percolate up to the derived morphological causative compound verb (V_{i+x}). Thus, the index of the embedded V is carried by V_{i+x} which, in fact, does c-command and govern t_i , the trace of the embedded V, thereby ensuring that ECP is satisfied. Note that the trace, t_{i+x} , which is left behind by the raising of the morphological causative verb (V_{i+x}) to Agr is also c-commanded and governed by its antecedent, **-mèdhàrà**, which is at the head of the movement chain. More specifically, the head and the tail of the movement chain are all Vs without intervening elements which can function as potential governors. This kind of chain is an indication of proper movement; hence, the structure (23) is well-formed (cf. Li 1990).

Also, the chain formed by the trace t_j and its antecedent (head) also contains elements that are of the same kind. The head of this chain **Obi_j** c-commands and governs its trace, and there are no intervening elements to count as barriers or potential governors between them. Similarly, the trace, t_k in [Spec, VP₁] is properly governed by its antecedent **Ezè_k** which is in [Spec, AgrsP₁]. From all these observations, it is clear that all the traces left behind by movement of constituents are properly governed in (23) and the structure is well-formed as expected.

Two basic principles of MP: the principles of Greed and Shortest Move are fulfilled in the derivation of the morphological causative construction in (23). First, the incorporation of the embedded V by the incorporation host, the causative verbal morpheme ensures that the incorporee becomes transitivized and at the same time inherits the causative feature [+ Causative] from the incorporation host. Thus, the incorporation of the incorporee is feature driven, satisfying the principle of Greed. The movement of the derived morphological causative verb (V_{i+x}) to the head of VP₁ is also feature-driven. The morphological causative verb (V_{i+x}) **mmedhàrà** has the feature [+Agentive] (causer role plus volitionality) which must be checked off against that of the causative light verb at whose specifier position the agentive NP **Ezè** is generated. In the same vein, the raising of the **Òbi** from [spec, AgrsP₂] to [spec, AgrOP] is for accusative case checking in a spec-head (Agro) relation. It is also for nominative case checking in a spec-head (Agrs) relation that the agentive NP **Ezè** raises from [spec, VP₁] to [spec, AgrsP₁].

In fulfilment of the Shortest Move, each of the constituents that moved in (23) has moved into the closest position of the right kind and, in an upward direction.

4.1.3 Morphological Causative Formation and Government

Part of the consequence of the incorporation phenomenon observed in morphological causative formation is the fact that the usual government relationships are disrupted while new government relations are established. The incorporation host (the causative **-me**) and the incorporee (an intransitive verb) form a complex verb that governs all the arguments originally government by its members (the Government Transparency Corollary, Baker 1988:64). It is for this reason that in morphological causatives, arguments of the embedded verb come to be seen as arguments of the derived morphological verb and are subject to a process of grammatical function change.

Chapter 5

Lexical Causatives

5 Preliminary Remarks

This chapter is concerned with lexical causatives in Igbo. We shall examine the morphological structure of the different verbs which lexically express the idea of causation, and show how they are derived.

5.1 Lexical Causatives

Igbo, like English (and some other languages), has certain verbs which are causative in nature and are used for the expression of causation. These verbs are designated lexical causatives, and this is due to the fact that the relationship which exists between their causative (transitive) and anticausative usage is lexicalized, not marked by any morphological feature.

Lexical causatives in Igbo can be divided into two classes on the basis of their morphological shape. There is the class of lexical causatives which consists of two verbal elements joined together, each being of a CV structure (Section 5.3). This class of lexical causatives in Igbo has been described by Uwalaka (1982, 1995) as causative verb compounds, while Hale, Ihionu and Manfredi (1995) refer to this same class as Igbo "bipositional" causative verbs. The other class of lexical causatives comprises a single verbal element which is also of the CV structure (Section 6.2). We shall refer to the verbs in this later class of lexical causatives as "non-bipositional" causative verbs while retaining the term "bipositional" for the former class following Hale, Ihionu and Manfredi (1995). Thus, in this work, Igbo lexical causatives have been divided into bipositional and non-bipositional. While the non-bipositional causative verbs constitute a very small group in the lexical causatives, the bipositional ones are generally large in number, thereby constituting the majority of lexical causatives. We shall discuss these two classes of lexical causatives in some detail.

5.2 Non-Bipositional Causative Verbs

As mentioned earlier, the non-bipositional causative verbs in Igbo are quite few. A typical example that readily comes to mind is the verb **-gbu** 'kill', as shown in (1).

- (1) Òbì mgbùrù òkè ahù
Obi pr. kill-rv past rat that
'Obi killed that rat'

The verb **-gbu** 'kill' in (1) is a causative verb since its core meaning implicates "CAUSE TO BECOME NOT ALIVE" (cf. McCawley 1968). Note that the construction (1) has a causative reading, and is therefore, a causative construction (cf.2). Note also that (1) is an agentive causative construction since it has a cause(r) agent **Òbi** which has brought about the situation expressed by the predicate (cf. Comrie 1985).

As we observed in section 2.2.3 every causative construction usually has an anticausative counterpart. In the anticausative, the hitherto object of the causative verb functions as the grammatical subject, while the causative agent remains syntactically covert. The anticausative of causative (1) is (2).

- 2) Òke ahù nnwùrù
 rat that pr. die -rv past
 'That rat died'

Observe that the anticausative verb in (2) is **-nwù** 'die', an intransitive verb which is morphologically different from the causative **-gbu** in (1). Also observe that the object of the causative **-gbu** in (1) now functions as the grammatical subject of the anticausative **-nwù**, while the causative agent **Obi** in (1) is not syntactically expressed in (2).

In spite of the morphological difference between **-gbu** in (1) and **-nwù** in (2), a syntactic and semantic relationship of causativity still exists between them. This means that though they are superficially different verbs, they are in fact, alternative syntactically-conditioned phonological realizations of the same verb (cf. Lyons 1968). It is for this reason that the lexical structure of Igbo grammar neither permits a sequence like (3) as an anticausative of (1) nor a sequence like (4) as the causative of (2).

- 3) *Òke mgbùrù
 rat pr. kill-rv past
- 4)* Òbi nnwùrù òke
 Obi pr. die-rv past rat

5.3 Bipositional Causative Verbs

Igbo has a considerable range of verbs which following Hale, Ihionu and Manfredi (1995), we shall, refer to as bipositional verbs. These verbs have a causative semantics and they are the main Igbo equivalents of the serial construction found in many other Benue Congo languages. (Lord 1975, Hale, Ihionu and Manfredi 1995). They have an interesting make up and derivation.

The bipositional verbs are not the same as the inherent complement verbs, though both classes of verbs in Igbo share certain similarities. First, the existence of both classes of verbs in the grammar of Igbo is occasioned by the important need of expanding the functional semantic load of already existing CV verb roots. To this extent, the inclusion of a verb element or a noun as a second member, to an already existing CV root results in a bipositional verb or an inherent complement verb as the case may be as shown below in 4b(i-iv) and 4c(i-iv).

Bipositional Verbs

- 4b) (i) pìwa split to break
 (ii) rùfu 'poke to create a hole'
 (iii) zòji 'stomp to snap into two'
 (iv) dọwa 'pull/drag to tear'

Inherent Complement verbs

- 4c) (i) ku-ilū 'be bitter'
 (ii) ma-mmā 'be beautiful'
 (iii) gba-nkwà 'dance'
 (iv) vù-ọnū 'fast'

This mechanism or process ensures that there is no increase in the formal lexical units in Igbo (Nwachukwu 1987). Secondly, both the bipositional verbs and inherent complement verbs have a similar superficial structure; each verb type consists of two elements which function as one in overt syntax. However, unlike the inherent complement verbs, whose second members are nominal elements, the second members of bipositional verbs are verbal elements. The first member of a bipositional verbs implicates a type of inherent volition force triggering a causation resulting in an "effect" as expressed by its second member; The first member of an inherent complement verb on the other hand is a semantically vague verbal element linked to its second member, an inherent complement (a nominal element). It is this inherent complement that supplies the semantic content to its verb root.

The component parts of a bipositional verb or an inherent complement verb constitute a semantic unit, and their respective second members, each, carries a higher functional semantic load. This is because the respective first members will not express a clear meaning without their second members. More evidence in support of the claim that the second member of a bipositional or an inherent complement verb carries a higher semantic load comes from the fact that in the case of the bipositional verb (as we shall see later (cf.13a-c)), its second member can occur alone, as the only verb in a sentence, while the

inherent complement (outside its verb root) can participate as an NP complement in constructions involving non-inherent complement verbs.

Though we have highlighted the differences and similarities between bipositional and inherent complement verbs, our focus shall be on the bipositional verbs. It is important to note, however, that not all bipositional verbs in Igbo are causative. Some are transitive and causative, while others are transitive and non-causative (cf. 5.5.2). Furthermore, some alternate their transitivity (cf. 5.5.3), while others are basically intransitive (cf. 5.5.1). Within the bipositional verbs, our attention shall be focused mainly on the causative bipositional verbs. However, their causative attribute may not be very clear to us except when contrasted with their non-causative counterparts; hence, we shall also discuss the non-causative bipositional verbs together with the causative ones noting their idiosyncracies with respect to the notion of "transitivity and causativity". But before we do this, let us first look at the notion "transitivity" and how it has been viewed in Igbo syntax.

5.4 The Term "Transitivity"

The term "transitivity" has always been subjected to so much debate in linguistic studies. This is because the division of verbs into transitive or intransitive class cannot be done neatly since there are verbs which can occur as transitive in one context, and as intransitive in some other context (Ndimele 2003). According to Lyons (1968:350), "the traditional notional view of transitivity suggests that the effects of the action expressed by the verb 'pass over' from the 'agent' (actor) to the 'patient' (goal)".

For Hopper and Thompson (1980:251), "transitivity is traditionally understood as a global property of an entire clause, such that an activity is carried over or 'transferred' from an agent to a patient. They add that "transitivity in the traditional view, thus, necessarily involves, at least two participants (agent and patient) and an action which is typically 'effective' in some way". Hopper and Thompson (1980:252) further note that transitivity involves a number of components, and that the agent and the object are involved with the effectiveness with which a transitive action takes place (e.g., the punctuality and telicity of the verb, the conscious activity of the agent, and the referentiality and degree of affectedness of the object).

Crystal (1992:344) also defines transitivity as "a grammatical category used in the grammatical analysis of clause/sentence constructions to define the types of relationship between a verb and the presence of object elements".

It is obvious from these definitions that in a transitive construction, the action of the verb which is instigated by an agent impinges on the patient (object) and causes a change of state in the object, while in an intransitive construction, there is no carrying over of action or effective relationship from agent to the following object.

It has, however, been stressed that the conceptualization of transitivity is not necessarily "one of dual dichotomy between transitive and intransitive verbs" (Ikoro 1996: 219). As pointed out by Osam (2000:1) transitivity should not be viewed as an absolute term but "as a scalar notion", so that the transitivity of a verb will depend on a cluster of properties or variables (Ndimele 2003). Also, within the Principles and Parameters framework, transitivity is tied to the ability of verb to participate in objective case feature checking.

In the following sections, we shall discuss Igbo bipositional verbs with respect to the concept of transitivity. This, we hope to do based on the notion of transitivity as the ability of a verb to check off the objective case features of a subcategorized NP object. We shall follow ideas put forward by Radford (1997:273) to assume that in Igbo, (i) a bipositional verb is transitive if it must check off the objective case of its object NP and (ii) a bipositional verb is intransitive if it does not license any object NP. In addition, there are bipositional verbs at the centre of the continuum whose transitivity is neither wholly transitive or wholly intransitive. Their position with regard to transitivity is an amalgam of transitive and intransitive features. Thus the transitivity of these bipositional verbs alternates appearing transitive in some constructions and intransitive in some others.

5.5 Bipositional Verbs and the Notion of Transitivity

Most bipositional verbs in Igbo are generally, fully compositional (semantically transparent) and they are either causative or non-causative. With respect to the notion of transitivity, we shall note that some bipositional verbs are intransitive, others transitive, while some others alternate: being transitive in some context and intransitive in other contexts. Note that the intransitive bipositional verbs are essentially non-causative. The transitive bipositional verbs on the other hand can be causative or non-causative. As should be expected, the transitive alternant of an alternating bipositional verb is causative, while its intransitive alternant is non-causative. Let us look at these categorizations in some detail.

5.5.1 The Intransitive Bipositional Verbs

Bipositional verbs in this group project one argument structure, consisting only of the subject, a thematic argument associated with a theta role. Intransitive bipositional verbs are essentially non-causative and are few in number. Typical examples include **-tukwù** 'squat', **-gbisa** 'kneel down' as used in the following example.

- 5a) Ezè òjì egùzo/ètukwù l'èzi
 Eze Hab. Pr.stand/pr.squat at compound
 'Eze stands/squats at the compound'

- b) Ezè òjì ègbisa l'álá
 Eze Hab. pr.kneel down on ground
 'Eze kneels down'

5.5.2 The Transitive Bipositional Verbs

Verbs in this group obligatorily project internal arguments in addition to the external ones. For the bipositional verbs in this group, the effect of the action they express passes over from the external agentive argument to the internal patient argument. As mentioned earlier, some transitive verbs are causative, while others are not. Those that do not lend themselves to a causative reading are few and include **-kpasà** 'sieve', as shown in (6).

- 6) Ezè òdì ikpāsà gàrì
 Eze pr.Prog. Pr.sieve garri
 Eze is sieving the garri'

With respect to the nature of the individual CV element as well as their morphological shape, the transitive causative bipositional verbs are further grouped into three. We shall look at these three groups.

The first group of the transitive causative bipositional verbs we distinguish here include those in (7a-d). Each bipositional verb in (7) comprises two individual CV type elements with high and low tone pattern respectively. Notice their usage in (8).

- 7a) kpojà 'to splay/split to pieces'
 b) tija 'hit to splay/split to pieces'
 c) gbujà 'kill to splay/split to pieces'
 d) dojà 'pull to splay/split to pieces'
- 8a) Ezè mkpojàrà anụ ahụ
 Eze pr.?-splay/split-rv past meat that
 'Eze caused that meat to splay/split into pieces'
- (b) Ezè òtijàrà okpòroko nà
 Eze pr.hit-splay/split-rv past stockfish this
 'Eze splayed/split this stockfish into pieces by hitting it'
- (c) Ezè mgbujàrà òke ahụ
 Eze pr.kill-splay/split rat that
 'Eze splayed/split that rat into pieces by killing it'

- (d) Ezè òdojàrà ùweyi nà
 Eze pr. pull-splay/split cloth this
 'Eze splayed /split this cloth into pieces by pulling it'

Whereas the first member of the bipositional verb in (7a) is a semantically vague verbal CV element (Anyanwu and Iloene 2003), the first members of the bipositional verbs in (7c-d (-**gbu** and -**dọ**)) are similar to the Igbo lexical verbs -**dọ** 'pull/drag, and -**gbu** 'kill' respectively. The second member of each of the bipositional verbs in (7) is the CV verbal element =**ja** which can be translated into English to mean 'splay, shatter, or break up/break open'. Also, while the first member of each of the bipositional verbs in (7) can be used as a transitive verb with semantic content (as in 9a-c), the second member -**ja** 'splay/ shatter', can neither be used transitively nor intransitively, as (10) shows.

- 9 a (i) Ezè m̀kpòrò Àdha òkù
 Eze pr.ABSTRACT(V) - rv past Adha call (IC)
 'Eze called Aha'
- (ii) Ezè_i m̀kpòrò ùweyi ya_i òkhù
 Eze pr.ABSTRACT (v)-rv past cloth his fire (IC)
 Eze burnt his cloth.
- (b) Ezè mgbùrù òke ahù
 Eze pr.kill-rv past rat that
 'Eze killed that rat'
- (c) Ezè ndòrò ùweyi Àdha aka
 Eze pr.pull/drag cloth Adha hand CIC,
 'Eze Pulled / dragged Adha's cloth'
- 10a) *Ezè òjàrà anù ahù (cf. 8a)
 Eze pr.-splay-rv-past meat that
- (b) *Anù ahù òjara
 meat that pr.-splay-rv-past

Note also that the verbal CV elements -**kpò** and -**dọ** must, however, co-occur with inherent complements, as in (9a (i-ii) and 9c). The second group of the transitive causative bipositional verbs consists of those in (11). They have a

low and a high tone pattern. The constructions, where they occur, generally, have a causative reading, as in (12).

- 11 a) kpòwa '¿ - to split'
 b) zòwa 'stomp to break'
 c) nyàwa 'split to break'
 d) pìwa 'press to break'
 e) pìfu 'press out to create a hole'
 f) rùfu 'poke to create a hole'
 g) tàfu 'bite off to create a hole patch'
 h) tìjì 'beat to snap into two'
 i) gbùjì 'kill/cut to snap into two'
 j) zòjì 'stomp to snap into two'

- 12a) Ezè **m̀kpòwàrà** nku
 Eze pr.ABSTRACT (V)-split-rv past firewood
 'Eze split the firewood or Eze caused the firewood to split'

- b) Ezè **̀nzòwàrà** efere nà
 Eze pr.stomp-break-rv past plate this
 'Eze broke this plate by stomping on it or
 'Eze made this plate to break by stomping on it'

- c) Ezè **̀nnyàwàrà** itè (n)à
 Eze pr.push-break-rv past pot this
 'Eze broke the pot by pushing it or Eze made the pot to break by pushing it'

- d) Ezè **m̀pìwàrà** bọ̀lù ya;
 Eze pr.press-break-rv past ball his
 'Eze broke his ball by pressing it or Eze caused the ball to break by pressing it'

- (e) Ezè_i **m̀pìfùrù** etito l' uùkwa ya_i
 Eze pr.press-open-rv past boil on leg his
 'Eze pressed (open) the boil on his leg or
 Eze caused the boil on his leg to open by pressing it'.

- (f) Ezè ñrùfùrù ụkwā (n)à
 Eze pr.pokeopen-rv past breadfruit this
 'Eze poked (open) this breadfruit or
 Eze caused this breadfruit to open by poking it.'
- (g) Ezè ñtàfùrù àkpà ya
 Eze pr.bite-open-rv past bag his
 'Eze bit (open) his bag or Eze caused his bag to open by biting it'
- (h) Ezè ñtìjìrì ngàjì anyì
 Eze pr.beat-snap-rv past spoon our
 'Eze snapped our spoon into two or Eze caused the spoon to snap into two'
- (i) Ezè mgbùjìrì àba osisi ahù
 Eze pr.kill/cut-snap-rv past branch tree that
 'Eze snapped the branch of three into two by cutting/killing it'
- (j) Eze ñzọjìrì osisi (n)à
 Eze pr.stomp-snap-rv past stick this
 'Eze snapped this stick into two by stomping on it or
 Eze caused this stick to snap into two by stomping on it.'

The bipositional verbs in (11) differ from those in (7) in certain ways. First, though the constructions in which they occur have a causative reading their second members each, unlike those in (7), can occur independently, as an intransitive predicator thematically associated with a subject argument, as the following examples in (13) show.

- 13a) Efere ahù m̀wàrà (àwa)
 Plate that pr.break-rv past BC
 'That plate (certainly) broke'
- b) Ìtè ahù ñfùrù (èfu)
 Pot that pr.poke open-rv past BC
 'That pot (certainly) poked open'

- c) Ngàji ya òjiri (eji)
 Spoon his/her pr.snap-rv past BC
 'His or her spoon snapped into two'

The first members of the bipositional verbs in (11), just like the first members in (7), can be used transitively, as in examples (14). In such transitive constructions, the first member of the bipositional verb must co-occur with an inherent complement (1C) which is excluded in their bipositional usage (cf. Lord 1975). Semantically, the IC denotes the object of instrumentation through which the action expressed by the verbal element is carried out.

- 14a) Ezè òzòrò efere ahù **ùkwù** (cf. 12b)
 Eze pr.stomp-rv past plate that leg (IC)
 'Eze stomped on the plate with his leg'
- b) Ezè m̀p̀r̀ì b̀ò̀l̀ù ya **aka** (cf. 12d)
 Eze pr.press-rv past ball his hand (IC)
 'Eze pressed his ball with his hand'
- c) Ezè òr̀ùr̀ù ùkwà (n)à **aka** (cf. 12f)
 Eze pr.poke-rv past breadfruit this hand (IC)
 'Eze poked this breadfruit with his hand'

The third group of Igbo transitive bipositional causative verbs comprises those in (15). Unlike the other groups, the two verbal elements making up a bipositional verb in the third group each, can be used in a sentence independent of their bipositional usage. These verbs always have a low and a high tone pattern. They may have a compositional and/or non-compositional meaning.

- | | <i>Compositional</i> | <i>Non-compositional</i> |
|-------------|----------------------|---------------------------------------|
| 15a) -tàgbu | 'bite to death' | 'chew properly', |
| b) -rìgbu | 'eat to death' | 'eat to the disadvantage of some one' |
| c) -kùgbu | 'beat to death' | |

As can be observed from the examples in (15), the second member of each of the bipositional verbs is the verbal element **-gbu**, while their first members have been drawn from the active/dynamic class or inherent complement verb class of Igbo verbs. Examples of sentences showing the independent use of each of the verbal components that make up bipositional verbs in this group are as shown in (16).

- 16)a Ezè òtàrà anu
 Eze pr. bite-rv past meat
 'Eze ate some meat'
- b) Eze ògbùrù egbu
 Eze pr.kill-rv past goat
 'Eze killed a goat'
- c) Eze òrìrì jì ahù
 Eze pr. eat-rv past yam that
 'Eze ate that yam'
- d) Ezè òkùrù Àdha hwe
 Eze pr.beat-rv past Adha something (IC)
 'Eze beat up Adha'

5.5.3 Alternating Transitive Causative Bipositional Verbs

A great many bipositional verbs participate in the transitivity (causative-inchoative) alternation. It is important to mention, however, that the transitivity alternation of verbs is not limited to Igbo. In fact, as we saw in chapter two, it is a common alternation cross-linguistically.

The bipositional verbs involved in this alternation sometimes are used transitively and sometimes intransitively. The objects of these bipositional verbs, in their transitive usage, appear as the subjects in their intransitive usage; hence, the verbs are ergative in the sense of Keyser and Roeper (1984), Burzio (1981, 1986) and Nwachukwu (1987). Both the transitive object and the intransitive subject of an alternating bipositional verb in Igbo are assigned the same theta role (theme/patient) since they occupy the same position with respect to a given predicate in the underlying position in syntax. The set of Igbo bipositional verbs which exhibit the transitivity alternation include those in (17). The data in (18) and (19) show the use of these verbs in sentences. While (18) is their transitive usage, (19) is their intransitive usage. Note that the first and second members of the verbal elements that make up these bipositional verbs, morphologically, pattern like the first and second members of the second group of the transitive causative bipositional verbs (cf. 11).

- 17)a) -gbàjì 'to snap into two'
 (b) -dòjì 'pull/drag to snap into two'
 (c) -kùjì 'hit to snap into two'
 (d) -gbàwa 'to break/crack'

g) Ojì òkùfùrù èbèlè ahù Ojì pr.hit-poke open-rv past calabash that that 'Ojì caused that calabash to poke open by hitting it'	g) Èbèlè ahù òkùfùrù calabash that pr.hit-poke open rv past 'That calabash poked open (by something hitting it)'
h) Eze òkùzhèrè ọzhùrù na Eze pr.hit-collapse-rv past anthill this 'Eze caused this anthill to collapse to rubble by hitting it'	h) Ọzhùrù nà òkùzhèrè anthill this pr. hit-collapse-rv past 'This anthill collapsed to rubble (by something hitting it)'
i) Ogù mgbazhèrè manụ iri Ogu pr.?-melt rv past palmoil 'Ogu caused the palm oil to melt'	i) Manụ iri mgbazhèrè Palmoil pr.?-melt rv past 'The palm oil melted'
j) Ogù òkùbìrì òkùmà ya Ogu pr.hit-break up rv past stone his 'Ogu caused his stone to break up into two by hitting it'	j) Òkùmà ya òkùbìrì Stone his pr.hit-break up-rv past 'His stone broke up into two (by something hitting it)'
k) Ezè òkùkpòrò anya ya Ezè pr.hit-burst-rv past eye his 'Eze caused his eye to burst by hitting it'	k) Anya ya òkùkpòrò eye his pr. hit-burst rv past 'His eye burst (by something hitting it)'
l) Eze òkùbiara okwu itè Eze pr.hit-compress-rv past lid pot 'Eze caused the pot lid to be compressed by hitting it'	l) Okwu itè òkùbiara lid pot pr. hit-compress-rv past 'The pot lid got compressed (by something hitting it)'
m) Anwụ mkpõnwurụ osisi a sun ?-die-rv past tree this 'The scorch of the sun dried up the tree'	m) Osisi à m̀kpõnwurụ tree this pr.?-die-rv past 'The tree dried up by the scorch of the sun'

The constructions in (18a-m) represent the causative alternants of the various ergative bipositional verbs, while the constructions in (19a-m) represent the anticausative alternation. The transitive/causative alternation (18a-m) provides an overt information about the 'actor', 'agent' or 'force' responsible for the event expressed by the construction. In the anticausative alternation, we notice that the undergoer of a change of state, which is lexically an internal argument externalizes, functioning as the grammatical subject. However, unlike in the passive structures, the agent does not become an oblique argument. In fact, it is not expressed overtly and it is probably the case that the pervasiveness of the

anticausative constructions is due to the fact that passives are not attested in Igbo grammar. Thus, in the sense of Lyons (1968) and Keyser and Roeper (1984), the bipositional verbs in both (18) and (19) are ergative. They can be used causatively such that there is a subject NP responsible for the event expressed by the construction or anticausatively without any overt subject NP responsible for the event.

Both the constructions in (18) and (19) reveal the fact that (like in English) the relationship between the causative and anticausative use of lexical causatives in Igbo is not reflected morphologically. That is, there is no morphological marker on the verbs to show or distinguish their causative usage from their anticausative usage. They are therefore, related to each other by means of a morphological process of zero modification (cf. Lyons 1968). This situation, observed in English and Igbo is, however, not the case in languages such as French and Italian (Zubizarreta 1985). According to Zubizarreta, the anticausative process is triggered by an overt morpheme in both French and Italian. In French, for instance, the anticausative morphology is marked by the clitic *se* (20b), while in Italian, it is *si* (21b). Both (20) and (21) are from Zubizarreta (1985:266).

20a) Le vent dissipe les nuages.
'The wind dissipates the clouds'

20b) Les nuages *se* dissipent
'The clouds dissipate.'

21a) Il vento dissipa le nubi
'The wind dissipates the clouds'

21b) Le nubi *si* dissipano
'The clouds dissipate'

A comparison of (18) and (19) also highlights the variation of grammatical relations of NPs with respect to the same predicate. For example, while *ngàjì (n)à* 'this spoon' is the object in (18a), in (19a), it is the subject. Reasons for the GF variation with respect to the same predicate may have to do with discourse factors. These discourse factors may include the idea of highlighting or playing down the role of a given participant in an event or action (Katamba 1993). This is the case in (19a), where the agent participant NP *Ezè* has been left unhighlighted. Nevertheless, the NP *ngàjì (n)à* has the same theta role in both (18a) and (19a). The implication of this is that the NP *ngàjì (n)a* originates from the same position in the two sentences. This observation is

consistent with Baker's (1988) uniformity of theta hypothesis (UTAH) which states that two arguments which fulfil the same thematic function with respect to a given predicate must occupy the same underlying position. Radford (1997:200) adds that the implication of Baker's UTAH is that "the principles of UG correlates thematic structure with syntactic structure in a uniform way".

5.6 How are Bipositional Verbs Derived?

Uwalaka (1995) is of the opinion that some Igbo bipositional verbs are fixed in their collocation, while others are derived through a syntactic process of head-to-head movement operation. This operation incorporates a noncausative V head to a causative V head thus, forming a bipositional verb (cf. Baker 1988). Uwalaka further states that those bipositional verbs which are fixed in their collocation are derived from the lexicon and are limited in number, while those derived through head movement generally constitute the greater number of bipositional verbs in Igbo. A typical example of bipositional verbs derived from the lexicon, according to Uwalaka is **-gùzo** 'stand'.

Uwalaka's opinion about the derivation of some bipositional verbs through a syntactic process of head movement is not different from that of Nwachukwu (1987), Manfredi (1991) and Hale, Ihionu and Manfredi (1995). Nwachukwu, for instance, posits a lexical rule for the derivation of a complex predicate such as an ergative bipositional verb. This lexical rule is given here as (22).

22) "Causative Root + unergative Root → Ergative".

It is rule (22), according to Nwachukwu, that is responsible for the 0derivation of bipositional verbs like the one in (23).

23) Ezè kù-wàrà ọbà
 Eze knock - split - ϕ ASP - gourd
 'Eze split open the gourd by knocking it'

For Manfredi (1991) and Hale, Ihionu and Manfredi (1995), the incorporation of the non-causative V element to the causative one in the derivation of bipositional verbs is in compliance with the requirement that the causative feature of the light CV verbal element (that is, the first member of a bipositional verbs) be checked off (cf. Lasnik 1997) by the incorporee, the non-causative verbal element (that is, the second member of a bipositional verb). Hale, Ihionu and Manfredi (1995) further hold the opinion that part of the consequence of this incorporation is also the requirement that a resulting bipositional verb inflects as a unit, realizing a phonological unit, the bound verb complement (BVC) which is a copy of both (cf. 24).

- 24) Ezè kù-wàrà ọbà àkùwa
 Eze knock-split- ϕ ASP gourd BVC
 'Eze certainly split open (the) gourd by knocking it'.

Contrary to the claims that these causative bipositional verbs are syntactically derived by incorporation/head movement, we shall claim in line with MP assumptions that Igbo bipositional verbs are derived through a morphological merger within the lexicon. They are derived from the lexicon during the select, merge and move processes at the computational level of derivation. This means that in the lexicon of Igbo, the V+V elements (sequence) which gives rise to a bipositional verb is taken as an item (one lexeme with a specific semantic interpretation) and is entered into the computational system as such. Being derived as a lexeme from the lexicon, a bipositional verb is also entered as one category node and its combination gives it its specific meaning (cf. Anyanwu and Iloene 2003). Once selected and merged, each member of a bipositional verb is conceived as part of the verbal ingredient of the entire bipositional verb, and therefore, cannot give rise to a maximal projection independent of each other. The process for the derivation of bipositional verbs is similar to the one that derives inherent complement verbs. For the inherent complement verb, however, a CV verbal element is merged with a nominal element. Both the bipositional verbs and the inherent complement verbs are, thus, historically perceived as verbal ingredients of their respective sentences.

5.7 Transitivity Alternation: A Cross-linguistic Insight

The syntactic behaviour of Igbo alternating bipositional verbs as illustrated in (18) and (19) is similar to the following sample verbs from English (Indo-European), Miskitu and Navajo (Misumalpan languages of eastern Nicaragua and Honduras). Such observations reflect the operation of a universal principle of grammar and lexical structure. The examples in (25a-b) are taken from Hale and Keyser (2002 :111).

25a) *Verbs that alternate*

<i>English</i>	<i>Miskitu</i>		<i>Navajo</i>	
Intransitive/Transitive	Intransitive	Transitive	Intransitive	Transitive
Boil	pya - w -	pya - k -	-béézh	- $\mathbf{\text{t}}$ -béézh
Breal	kri - w -	kri - k -	ii - dlaad	ii- $\mathbf{\text{t}}$ -dlaad
shatter	bai - w -	bai -k -	-ii - ts - it	-ii- $\mathbf{\text{t}}$ -tsil
dry (up)	lâ - w -	lâ - k -	-gan	- $\mathbf{\text{t}}$ -gan

fill	baugh -w -	baugh -k -	ha-di-bin	ha-di- † -bin
float	â -w-	â - k-	di-eet	di - † -eet
melt	slil - w-	slil -k-	-ghiih	- † ghiih

b) *Verbs that do not alternate*

<i>English</i>	<i>Miskitu</i>	<i>Navajo</i>
cry	in -	- cha
cough	kuhb -	d - l - kos
laugh	kik -	gh - dloh
plan	pul -	na - né
shout	win -	d - l - ghosh
sing	aiwan -	hw - taat
sleep	yap	-t-ghosh
snore	kratow-	-t-ghaa

The principal point being emphasized by both, (25a) and (25b) is that cross linguistically, there are verbs that participate in the simple transitivity alternation and there are those that do not. The verbs in (25a) belong to the class whose members can alternate (cf. 17), while the verbs in (25b) belong to the class that cannot. It is important to stress that the alternating and non-alternating classes in the languages compared contain the same verbs. Morphotogically, however, these verbs differ, in addition to the fact that they have different phonetic realizations in the three languages. As can be noticed, English lacks any special morphology associated with the transitive alternation, while both Miskitu and Navajo overtly distinguish the transitive members (by means of the /-t-/ in Navajo and /-k-/ in Miskitu). Whereas Miskitu marks the intransitive alternants with the /-w-/, Navajo uses the zero (ϕ). For all intents and purposes, the verb classes distinguished by these three languages are identical. This is not accidental, and it implies that there is a fundamental principle which underlies this coincidence in lexical behaviour (Hale and Keyser 2002).

Having claimed that Igbo lexical causatives are derived from the lexicon just, as the ones from English Miskitu and Navajo are also unarguably derived (Hale and Keyser 2002) there are certain basic questions, we think, deserve answers. For example, what principle is behind the asymmetry of the transitivity alternation? That is, what factor permits the alternation in the case of Igbo bipositional verbs in (17) (e.g. **-dòwa**, **-gbaji**, **-kùji**, etc.) and what factor blocks it in the case of the transitives (e.g. **-kpojà**, **-zòwa**, **-tàgbu**, etc.) and the strict intransitives (e.g. **-gùzo**). We believe that the answers to these

questions lie in the basic argument structure configurations of the bipositional verbs themselves. But before we x-ray the argument structure of these various Igbo bipositional verbs, we shall first, discuss the notion of argument structure.

5.8 Argument Structure of Lexical Items

The term "argument structure" is used to refer to the syntactic configuration projected by a lexical item (Hale and Keyser 2002). It is the system of structural relations which hold between heads and their arguments within the syntactic structures projected by the head items. The argument structure of a lexical item is determined by the lexical properties of the lexical item in particular, and also by the syntactic configurations in which the lexical item must appear. Zubizarreta (1985:247) lists five basic properties of the lexical structure of verbs. These properties, according to him, include

- a) The argument structure of a verb specifies the number of arguments that a verb takes and the semantic roles (e.g., agent, theme, goal, etc.) that each argument bears.
- b) Verbs make a distinction between two types of argument in their argument structure, namely the external argument and the internal one. The external argument is syntactically identified as the one that is realized in the [NP, S] position in a clause. The internal argument is syntactically realized in the VP (as a sister to the V). Lexical rules make crucial reference to the distinction between external and internal arguments (cf. William 1981).
- c) Besides the semantic roles of its argument, a verb specifies the syntactic frame in which the internal arguments are realized. The external/internal distinction of arguments is encoded in the lexical structure of verbs in terms of subcategorization features (cf. Chomsky 1965).
- d) There is still another distinction involving the arguments of a verb; this distinction cuts across the external/internal one. The semantic role of an argument realized in a PP is restricted by the preposition such that the complement of **of** (in English for instance) is usually a **theme**, the complement of **from** a **source** while the complement of **in** a **location**. On the other hand, an argument that is realized as an object of a verb or as subject is semantically unrestricted. This is because other roles rather than agent may be assigned to the subject position just as other roles than theme may be assigned to the object position of a verb.

- e) The lexical structure of verbs specifies referential indices (cf. Stowell 1981). The motivation behind this assumption is that there is a class of verbs known as inherent reflexives. These types of verb impose co-referentiality between the internal and the external argument. One such verb, according to Zubizarreta (1982), is the verb **behave** which can function either intransitively or transitively. If it functions transitively, the object must be coreferential with the subject (cf. 26a -b).

- 26a) John behaved
b) John behaved himself.

Recent works on argument structure, according to Hale, Ihionu and Manfredi (1995) have, however, raised a lot of issues. According to them, the most important of the issues is the observation that argument structures (unlike sentential syntactic structures) are highly constrained and limited in variety. The implication of this observation, according to them, is that there are not many different types of argument structures, and again, the total number of thematic arguments is quite limited. This has even been reflected in the findings of argument structure research where the number of theta roles which have been proposed are not many, and are normally assigned according to strict hierarchy. Hale, Ihionu and Manfredi further state that the depth of argument structure never exceeds that attributed, say, to the English verb **put**, and it therefore, follows logically that the number of "direct" arguments which a basic verb can have does not exceed three (subject, direct object and indirect object).

Hale, Ihionu and Manfredi (1995) believe that the limits on lexical argument structure derive from certain fundamental aspects of grammar which include the lexical categories (V, N, A and P) and their inherent properties as shown below.

Properties of lexical categories

- a) V takes a complement and forms an expression denoting a dynamic event;
- b) N denotes an entity;
- c) A is a predicate and denotes a state or attribute, while
- d) P takes a complement and forms a "predicate"

In the sections that follow, we shall discuss in some detail, the argument structure of Igbo bipositional verbs, especially the causative ones. We shall argue that the different classes of bipositional verbs in Igbo project different argument structure. We shall note specifically that the alternating bipositional verbs have one structure (that is a dyadic configuration [Spec] V complement) while the non-alternating bipositional verbs project a different one. Also, we

shall follow ideas put forward by Larson (1988, 1990), Hale and Keyser (1991, 1993, 1994), Chomsky (1995), Hale Ihionu and Manfredi (1995) and Radford (1997) to assume that causative bipositional verbs project a double VP structure which comprises an outer VP shell with an inner VP one embedded within it. Semantically, the outer V implicates the dynamic situation denoted by the outer VP, hence, the meaning "cause" is usually associated with it. Agentive arguments originate within the outer VP shell, while others (e.g., theme) originate within the inner VP. The fact that agentive arguments originate within the outer VP shell of bipositional verbs is consistent with the VP-internal subject hypothesis (which is of the view that subjects raise to their superficial position from an original position inside a VP) (cf. Fukui and Speas 1986, Kuroda 1988, Koopman and Sportiche 1991, etc.).

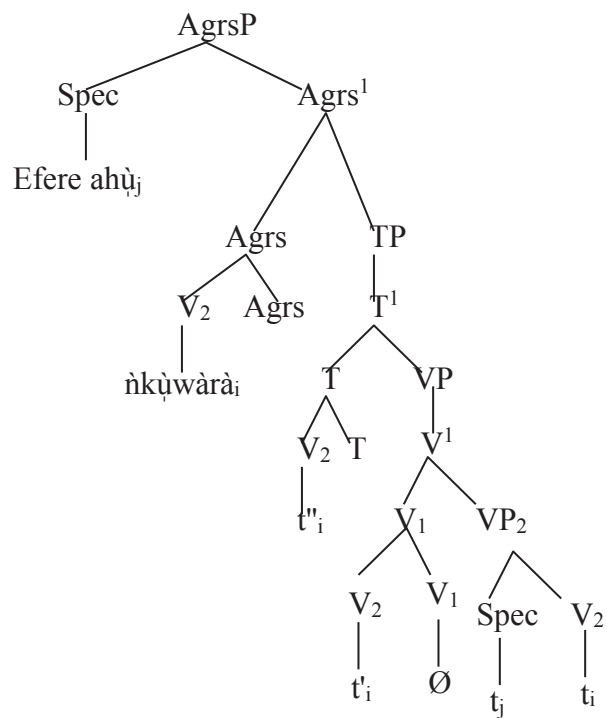
5.8.1 Argument Structure of Alternating Bipositional Verbs

One clear feature which all the alternating bipositional verbs in Igbo (cf. 17) share is that the subject of their intransitive alternant (anticausative usage) appears as the object of their transitive usage. Thus, in (27), the subject of the (a) sentence **efere ahụ** 'that plate' functions as the object in the (b) sentence.

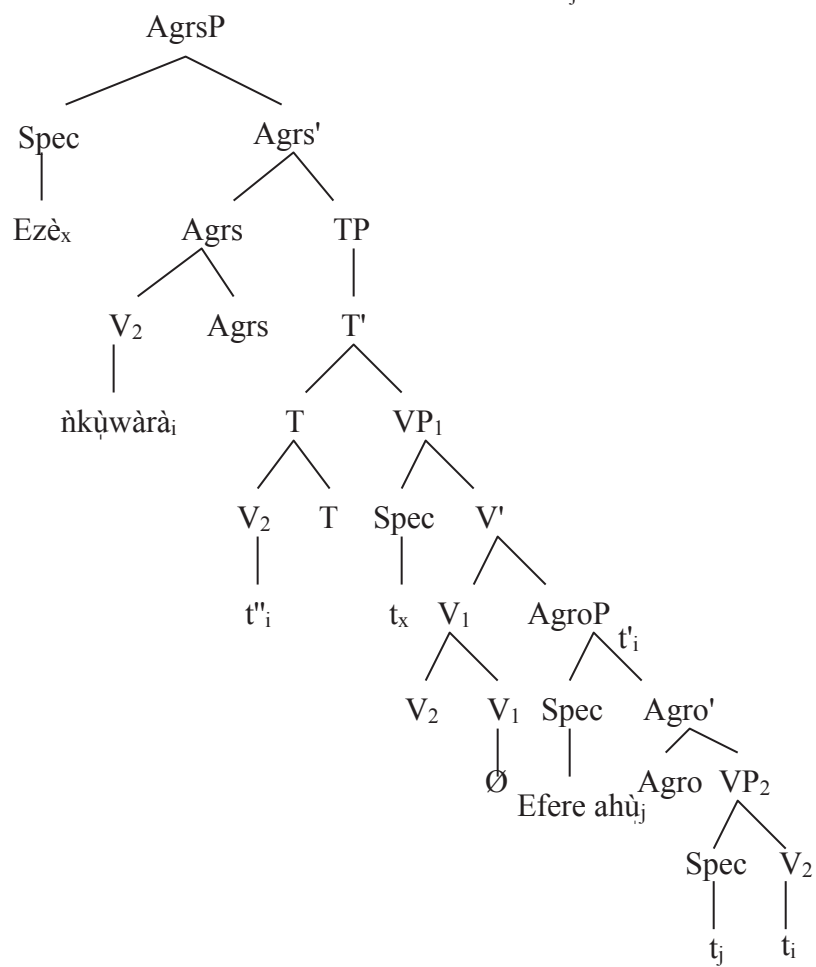
- 27a) Efere ahụ ñkùwàrà
 plate that pr.hit -break-rv-past
 'That plate broke'
- b) Ezè ñkùwàrà efere ahụ
 Eze pr.hit-break-rv-past plate that
 'Eze broke that plate'

Also, from (27), it is obvious that the theme argument **efere ahụ** is constant in the alternation. This, again, points to the fact that the theme argument is internal to the lexical structure of the alternating bipositional verbs; that is, it is always present in both alternants. If this is correct, it then follows that the alternating bipositional verbs must realize one of the lexical structures that contains a predicate-like subconstituent, and therefore, a subject which is internal to the lexical structure itself. The tree structure representations in (28a) and (28b) show the two alternant constructions, (27a) and (27b) respectively. While (28a) exemplifies the intransitive alternant, (28b) exemplifies the transitive alternant.

28a)



28b)



From both (27) and (28), we observe that for the alternating bipositional verbs, there is a causative transitive construction as well as an anticausative one. In fact, the tree structure in (28a) (cf. 27a) is an ergative structure. As an ergative structure, its [Spec, AgrsP] is empty so that raising of the theme argument from the object position (which is motivated by greed) can take place into the landing site (ie [Spec, AgrsP]). At the [Spec, AgrsP], the theme argument checks for nominative case features and as well, satisfies the EPP (Extended Projection Principle) which requires that every predicate should have a subject. Note that the theme argument prior to its movement to [Spec, AgrsP] acquires its theme role from within the maximal VP. Note also that it does not check any objective case features because the ergative morphology is defective to provide the necessary format to check off case properties of a GF object.

In (28b), the theme argument **efere ahù** 'that plate' originates from the specifier of the internal VP, where it acquires its theme role before raising to [Spec, AgroP] to check off its associated accusative case features under a Spec-Agro relation. The causative agentive NP, the entity responsible for the event described in the predicate in (28b), is derived at the specifier position of the matrix VP. It is from this position that it raises to the [Spec, AgrsP] where its nominative case features are checked.

Apart from the difference in the relative position of the theme arguments in (28a) and (28b) there is still another difference between the two structures which needs to be highlighted. This is the observation that, unlike in (28b), the specifier position of the matrix VP in (28a) is not projected. This is because the specifier of the matrix causative VP is where causative agentive NPs originate. There is no sense of agency or volition in (28a) but only of "cause". This "cause" interpretation is simply the normal interpretation of the configuration [V₁[V₂]], where V₁ is the hitherto phonetically empty causative verb, while V₂ heads a verbal construction which appears as the complement of V₁. The implication of this observation is that the theme argument in the course of its movement to [Spec, AgrsP], does not pass through [spec, VP₁] because [Spec, VP₁] is not projected. If [Spec, VP₁] were projected the derivation of (28a) would have crashed since the raised theme argument would have passed through it, thereby picking up the causative agentive role in addition to its theme theta role. This is a situation which violates the θ -criterion.

5.8.2 Argument Structure of Transitive Causative Bipositional Verbs

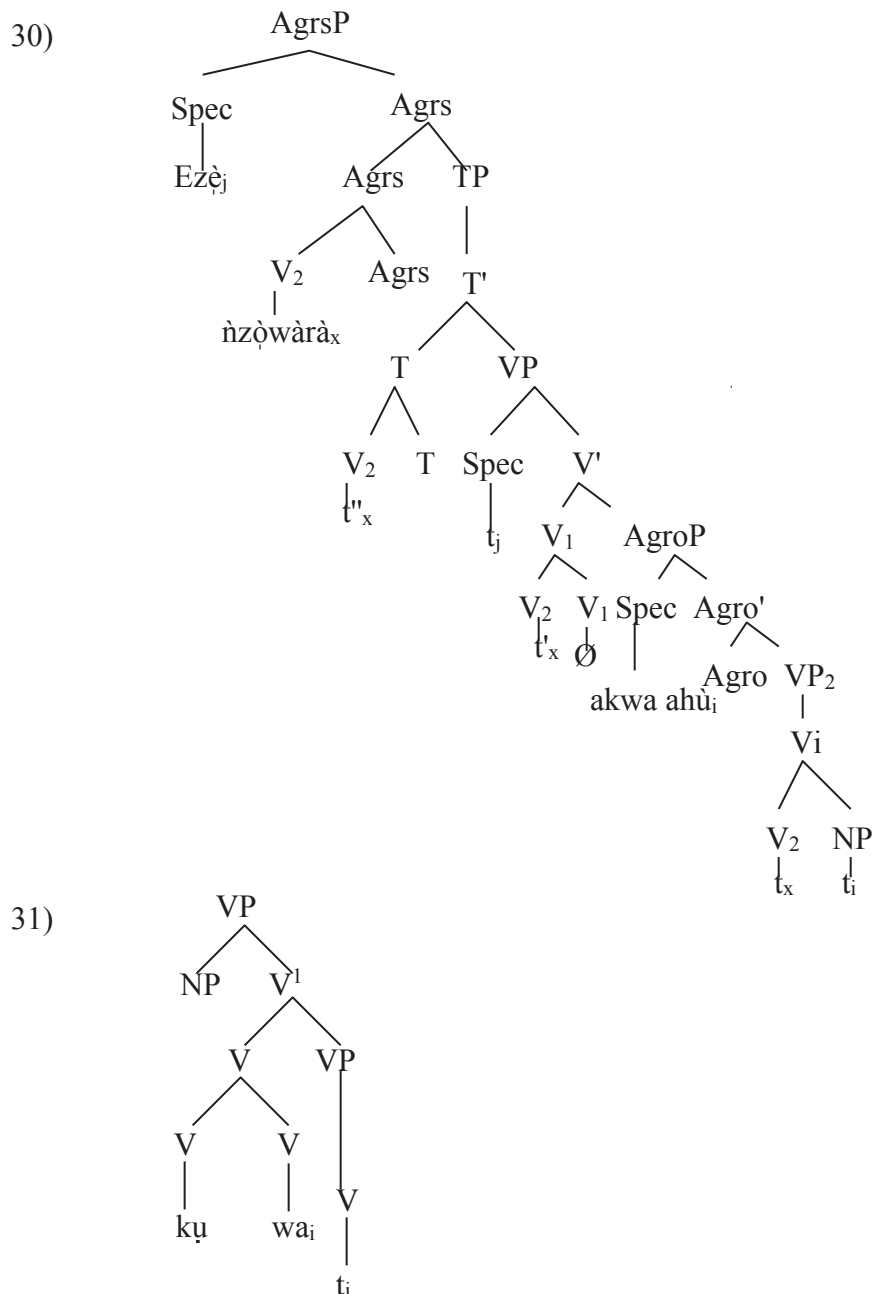
The argument structure of transitive causative bipositional verbs in Igbo is different from the argument structure of the alternating bipositional verbs. The tree structure in (30), for example, represents the construction in (29) which contains the transitive causative bipositional verb **zòwa** 'break by stomping' (cf. 11a-j).

The lexical structure of the transitive causative bipositional verbs requires an obligatory overt external causative agentive NP as part of their argument structure. This causative agentive NP originates from the specifier position of the main VP. It is the head of the matrix VP that theta marks this causative agentive subject.

Unlike the alternating bipositional verbs, the theme argument of a transitive bipositional verb originates as the object of the internal VP. It is from the internal VP complement position that this theme NP (**àkwa ahụ**) raises to [Spec, AgroP] for accusative case checking. Transitivity alternation is not possible for verbs in the class of transitive bipositional verbs, because these verbs have only one external subject, the one licensed outside the internal VP.

- 29) Ezè òzòwàrà àkwa ahụ
 Eze pr.stomp-break-rv past egg that
 ‘Eze broke that egg by stomping on it/
 Eze caused that egg to break by stomping on it’.

Highlighting more on the reason why some bipositional verbs are transitive, while others alternate, Hale, Ihionu and Manfredi (1995:101) propose a solution which appeals to semantics, and specifically to the semantic content of certain verbal components in transitive and intransitive argument structures. In line with their head-to-head movement analysis for the derivation of bipositional verbs, they argue that the ability of the bipositional verbs **-kùwa**, **-gbàwa**, **-dòka**, **-gbaji**, etc., (cf. 17) to alternate freely is due to their assumption that the causative element of these bipositional verbs (that is, their respective first CV members) are entirely empty (semantically) apart from their categorial identification. They add that the lexical entry for alternating bipositional verbs is, in fact, the intransitive form alone, the transitive option being as an inescapable option, freely available in principle, since no principle of grammar is violated by freely inserting the semantically empty causative matrix V and raising the lexical V (the second member) to it, as shown in (31).



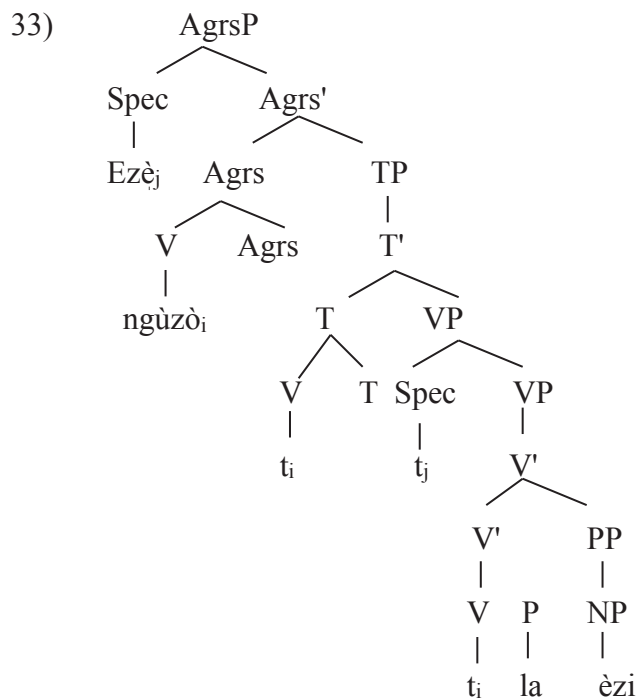
For the transitive bipositional verbs (e.g. *kpojà*, *tàgbu*, *zòwa*, etc) (cf. 11), Hale, Ihionu and Manfredi (1995) further argue that they (the transitive bipositional verbs) are lexically transitive; their matrix V has content, and therefore, cannot be omitted. They conclude, noting that the difference between the transitive bipositional verbs and the alternating ones corresponds to a semantico-pragmatic difference whose role in the formation of causative verbs in Berber has been extensively studied by Guerssel (1986).

From these observations, it is clear that in the formation of the strict transitive bipositional verb construction, the agent's participation is obligatorily required in order for the effective action expressed by the transitive bipositional verb to take place. This is unlike the case with the alternating transitive bipositional verbs, where the agent may not be directly involved in the causative action affecting the patient, and no principle of grammar is violated by omitting it.

5.8.3 The Argument Structure of Intransitive Bipositional Verbs

The intransitive bipositional verbs, as mentioned earlier, are non-causative. They are also non-alternating, and this is because they have only an external subject. These bipositional verbs, which can be referred to as unergative bipositional verbs, cannot participate in the transitivity alternation because they lack an internal subject (that is, a specifier projected by the lexical head), and they also provide no source for an object NP argument in a hypothetical transitive alternant. Using the intransitive bipositional verb **gùzo** 'stand up' (cf.5), we provide the tree structure in (33) for the sentence in (32). The tree in (33) shows the argument structure of the verb **-gùzo** in (32).

- 32) Ezè ngùzò l'èzi
 Eze pr.stand up at compound
 'Eze is standing at the compound'



5.9 On the Categorical Status of Members of a Causative Bipositional Verb

There has been a controversy as to what the categorial status of a second member of a causative bipositional verb is. This controversy has been among analysts who argue that causative bipositional verbs are not derived from the lexicon, that they are rather derived syntactically by head-to-head movement (incorporation). Some of these second members whose categorial status has been questioned include **-ja**, **-wa**, **-fu** and **-ji** in formations such as **-kpoja**, **-kùwa**, **-kùfu** and **-kùji** respectively (cf. 7 & 11).

Nwachukwu (1987), for instance, describes **wa** which he glosses 'break' as an unergative verb, because it never governs an object. He, therefore, assumes that **obà** 'gourd' is not the object of **wa** in the V-V verbal structure in (34) below.

- 34) Ezè kùwàrà ọbà
 Eze knock-break - rv past gourd
 'Eze broke open (the) gourd by knocking it'

On the issue of how **-kùwa** in (34) come to mean 'break open by knocking' Nwachukwu posits a lexical rule as in (22) repeated here as (35).

- 35) "Causative Root + Unergative Root → Ergative"

Manfredi (1991:16), however, argues that "even if the stipulation in (35) were responsible for (34), it is descriptively false". He argues further that if (35) was correct, and **-wa** is intransitive (unergative), then why can't an indisputably unergative verb such as **-nwu** 'die' combine with an indisputably causative verb such as **-gba** 'shoot' to form **gba-nwu**? Manfredi, therefore, notes that (35) is unnecessary because the premise that **-wa** (and by extension other second members of a causative bipositional verb) is inherently intransitive is false. He adds that, contrary to Nwachukwu's assertion, a transitive variant of **-wa** is common, as in the expressions in (36) and (37).

- 36) Ezè wara ọjì
 'Eze split up a kola nut (by breaking its lobes)'
- 37) Ezè wara jì
 'Eze split apart a tuber of yam'

Manfredi, however, further adds that an expression such as (38) is not possible in the grammar of Igbo, because as he observes, **gourds** (ọbà) (unlike kola nuts, and yams) do not split unless they are first **knocked** (**-ku**), struck (**-ti**) or

stepped on (-zọ) and it is this later pragmatic information that the first CV member of a causative bipositional verb encodes.

- 38) *Ezè wàrà ọbà
Eze split-rv-past calabash

On this point, Manfredi (1991) asserts that it is a linguistic coding of real world pragmatics, rather than grammar that seems to be responsible for the pattern of data shown in (34 - 38).

Still on the categorial status of the second member of a causative bipositional verb, Hale, , Ihiọnu and Manfredi (1992: 81) argue that **-wa** (in -zọwa, -kùwa, etc.) is not a verb but an A(djective) or an archi-category (A/N(oun)). According to them, the categorial status of **-wa** as either an A or A/N follows from its monadicity and semantic character, (that is, the patient or theme of its surface subject). Hale, , Ihiọnu and Manfredi (1995:99), in their head-to-head (incorporation) analysis of causative bipositional verbs, also note that in Igbo, only CV roots incorporate.

Categorizing **-wa** (and indeed other second members of causative bipositional verbs) as an A (even within the head-to-head analysis) fails on morphological grounds. First, verb roots in Igbo are generally CV morphologically while the few lexical items in the adjective class (which include òma 'good'; òcha 'white', ọjọọ 'bad', òjii 'black') are morphologically non-CV roots. By stating that only CV roots incorporate in Igbo, Hale, , Ihiọnu and Manfredi do not perhaps recognise the fact that CV roots in Igbo are mainly verbs. If **-wa** is an A, and can be incorporated by a V, then it should also be the case that the other members of the adjectival class (e.g. òma, ọjọọ, ọcha) can be incorporated by a V. This is, however, certainly not the case. Secondly, it is a feature of Igbo verb in the -rV form that it generally requires an overt S-structure complement which is a copy of the verb which bears a nominalizing prefix (the bound verb complement (BVC) as is the case with the non-bipositional verb in (39).

- 39) Ezè ñgàrà ahịa aga
Eze pr.go-rv past market BVC
'Eze certainly went to market'

This requirement is also fully met by the post-verbal copy of bipositional verbs, as the example in (40) shows.

- 40) Ezè òzòwàrà ọ̀bà àzọ̀wa
 Eze stomp-break-rv past gourd BVC
 'Eze certainly broke the gourd by stomping on 'it'

Although we do not favour a head-to-head (incorporation) analysis for Igbo bipositional causative verbs, we wish to reiterate that the second member of a causative bipositional verb is dependent on its first member. The two are derived from the lexicon as a verbal lexeme with its unique causative semantic character. It is this inherent causative character that necessitates the presence of an agent in its argument structure.

It must be stated that prior to the merger that derives bipositional verbs in the lexicon, each member of a bipositional verb must have existed in the lexicon with a categorial status. How do we know the categorial status of each member? Before attempting to answer this question, let us list those CV elements that can occur as the first members (41) and those which can occur as the second members (42).

- | | | |
|-----------|----------|----------|
| 41)a) -ti | (f) -pì | (k) -ta |
| b) -dọ | (g) -rụ | (l) -ri |
| c) -kpọ | (h) -kụ | |
| d) -zọ | (i) -gba | |
| e) -nya | (j) -gbu | |
| 42)a) -wa | e) -kpọ | (i) -gbu |
| b) -fu | f) -bi | |
| c) -ji | g) -bịa | |
| d) -zhe | h) -ja | |

We shall assume, contrary to Hale, Ihionu and Manfredi (1995), that both the first and second members of a bipositional verb are verbal elements. Our assumption here, is hinged on both the morphological and syntactic behaviour of these members. In terms of morphological structure, each member of a bipositional verb has a CV structure. Verbs in Igbo are predominantly of the CV structure, and this observation strongly suggests that the members of a bipositional verb are verbal elements. With regard to their syntactic behaviour, most of the CV elements which occur as the first members of a bipositional verb equally occur as inherent complement verbs (together with their respective inherent complements). The CV elements in (41a-1) belong to this group. Their respective inherent complements denote the object of instrumentation through which the action expressed by the inherent complement verb is expressed. The constructions where these CV elements occur as inherent complement verbs

express meanings similar to the one expressable by their associated bipositional usage (cf. 14a, b & c with 12b, d, e & f). Some other first members of a bipositional verbs (e.g. 41j-l), outside their bipositional usage can occur as full fledged verbs, as the following examples in (43a-c) show.

- 43a) Ezè mgbùrù òke
'Eze killed a rat'
- b) Ezè òtàrà anù
'Eze ate some meat'
- c) Ezè òrìrì jì
'Eze ate some yam'.

Similarly, those in (42), which generally occur as second members of a bipositional verb, can also occur as intransitive verbs thematically associated with a surface subject (cf. 13 a - c). The only exceptions to this observation are **-ja** and **-gbu** (**-gbu** is a transitive CV root).

The above observations about the morphological and syntactic behaviour of the CV elements making up a bipositional verb point to the fact that they are both verbal elements. We shall, therefore, follow Nwachukwu (1987) to assume that the two CV elements constituting a bipositional verb are verbal entities. We shall, however, follow Anyanwu and Iloene (2003) to add that some of the CV members of some bipositional verbs (e.g. kpọ, gba, dọ, zọ, ja, etc.), before being merged in the lexicon, are vague semantically but acquire specific semantic content after the merger. This is exactly the same process that merges certain verbal entities and nominal elements which after merger, become known as inherent complement verbs.

Let us at this point, re-evaluate Nwachukwu's (1987c) lexical rule given in (22 and 35). His lexical rule states that an ergative verb results from a causative root plus an unergative root. This rule clearly works well if we assume that the first member of a causative bipositional verb implicates causation, while the second is an unergative root. In fact, the observations made from the data in (18) and (19) illustrating ergative bipositional verbs confirm this. In each of the ergative (alternating) bipositional verbs, there are two CV roots; the first implicating the causative idea, while the second is an unergative root.

On the reason why it is not possible for causative CV verbal elements to causativize with **-nwu** 'die' for the derivation of a corresponding bipositional verb, as observed by Manfredi (1991), we want to argue here that the impossibility of such a bipositional formation with **-nwu** stems from facts

relating to the semantics of both **-nwụ** and **-gbu** 'kill' in the grammar of Igbo. Although both **-nwụ** and **-gbu** are morphologically different, they are, alternative syntactically conditioned realizations of the same verb in Igbo (cf. Lyons 1968). The implication of this observation is that the relationship of causativity existing between **-nwụ** and **-gbu** in Igbo is similar to one existing in English between the verb **break** in (44a) and the verb **break** in (44b).

- 44a) John broke the plate.
b) The plate broke.

The verb **break** in (44a) is causative while in (44b), it is anticausative. In the same vein, the verb **-nwụ** is the anticausative counterpart of the causative **-gbu** (cf. 1 and 2). From these observations, it follows that **-nwụ**, an already anticausative verb which expresses the effect of a causation, cannot be merged with any verbal element whose semantics implicates causation. It is for these reasons therefore that bipositional formations such as those in (45) are not possible in the grammar of Igbo.

- 45) a) *gba-nwụ
b) *k-ụ-nwụ
c) *me-nwụ

Before concluding this section, it is important that we take a closer look at the semantics of the CV verbal element **-wa**. This is because it regularly merges with a variety of other CV verbal elements to form bipositional verbs. In some of the formations, **-wa** conveys the meaning of “split” (e.g. 11a), while in some others, it gives the meaning of “break” (e.g. 11b). In the next section therefore, we shall argue that **wa** is a polysemous verbal element.

5.10 A Case for ‘-Wa’ as a Polysemous Verbal Element

The verbal element **-wa**, as we observed in example (13a), can be used as an intransitive or monadic predicator. Hale, Ihionu and Manfredi (1995) also make this observation, and the example in (46) is from them.

- 46) Qbà à wara awa
gourd this split-ASP BVC.
‘This gourd is split open’

They, however, note that the monadicity of **-wa** has an additional consequence in Igbo grammar. The verbal element **-wa** does not undergo the causative anticausative alternation. Thus, (46) has no causative counterpart (47).

- 47) *Ezè **wara** ọbà
 Eze split-ASP gourd

Instead of allowing an English-type zero-derivation (from inchoative/ anticausative **break** to causative **break**), Hale, Ihionu and Manfredi (1995) observe correctly that the causative counterpart of Igbo **-wa** requires a bipositional verb like **-zòwa**, **-pìwa**, **--kùwa**, **-dòwa** (cf. 11 and 17). They further add that there is, however, a transitive verb of similar form exemplified in (48) (cf. 36 and 37).

- 48) Ezè wàrà ọjì
 Eze split-Asp kola nut
 'Eze broke/split (the) kola nut/
 Eze prepared (the) kola nut for use (by splitting it into its segmented lobes)'

Hale, Ihionu and Manfredi further argue that (48), while transitive, is not a true causative comparable to the hypothetical **-wa** of (47). According to them, the **-wa** of (48) as suggested by its second English gloss, involves a creation verb, similar to English **bake a cake** or **do the dishes**. In support of this interpretation, they draw attention to the fact that (48) has no anticausative alternant parallel to (46) (cf. 49).

- 49) *Ọjì à wara awa
 kola this split-Asp BVC

As can be observed from (46-48), Hale, Ihionu and Manfredi consistently gloss **-wa** in (46) as “split” and also gloss **-wa** in (47-48) as “split/break”. They, however, acknowledge that the **-wa** in (48) can only be transitive and not causative, while the **-wa** in (46) can only be intransitive. In this work, we shall maintain that the **-wa** of (48) is transitive and not causative, while that of (46) is intransitive but becomes causative in bipositional usage. Again, as suggested by the second gloss of (48), the meaning of **-wa** include a “sense of creation” and this also suggests that the **-wa** in (48) inherently implicates a (non-causative) agent as part of its argument structure. This is unlike the **-wa** in (46) whose argument structure does not include any agent (except when it forms a bipositional verb with a causative CV root). Contrary to Hale, Ihionu and Manfredi, we believe that glossing **-wa** in (46) as 'split' and in (48) as 'split/break' does not capture the semantic difference between (50) and (51) in Igbo.

50) Èbèlè nà mwàrà (àwa)
 Calabash this pr.break-rv past BVC
 'This calabash (certainly) broke'

51) Ezè mwàrà ọjì nà (àwa)
 Eze pr.split-rv past kolanut this BVC
 Eze certainly split this kola nut'

The appropriate gloss for **-wa₁** an intransitive verb in (50) is 'break', which denotes the idea of "something separating into two or more pieces, for example by hitting, dropping, or bending" (*Longman Dictionary of Contemporary English* (LDOCE), Third Edition). On the other hand, the appropriate gloss for **-wa₂**, a transitive verb in (51) is 'split', which denotes the idea of "dividing something into two or more parts" (LDOCE, Third Edition). From the difference in the glossing, it is obvious that **-wa₁** implies a sense of "destruction", while **-wa₂** implies a sense of "division". These observations point to the fact that the verbal element **-wa** is polysemous. Both **-wa₁** and **-wa₂** are related in meaning. They belong to a common core of meaning which implicates a sense of separation into two or more units. However, the meaning of **-wa₁** 'break' is central while (the meaning of) **-wa₂** 'split' is an extended sense of **-wa₁**.

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This book is a revised version of Dr. Anyanwu's doctoral dissertation which he presented to the University of Port Harcourt, Nigeria. It examines causatives in Igbo within the minimalist framework. It identifies three types of causative, which are analytical, morphological and lexical.

To be candid, I have been part of the history of the making of this excellent master-piece from its cradle, and I hasten to say that the book is well-researched, and the project, thoroughly executed. One of the striking qualities of this book is how the author meticulously gives an overview of the minimalist enterprise in a straightforward prose that is both elegant and lucid. So, scholars who are eager to be initiated into the Chomskyan minimalist school should begin by reading the outline of the minimalist program as contained in this book. The book is indeed an immense contribution to quality knowledge, and I endorse it generously.

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